COUNTY BOROUGH OF BOOTLE.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR

1926.

F. T. H. WOOD, O.B.E., M.D. (Lond.), B.S., B.Sc., D.P.H.

Medical Officer of Health, School Medical Officer, Administrative Tuberculosis Officer, and Medical Superintendent of Corporation Hospital, Sanatorium, and Maternity Home.

BOOTLE:
BOOTLE TIMES, LIMITED, 30, ORIEL ROAD.

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BOOTLE TOWN COUNCIL 1925-1926.

§†*His Worship the Mayor (T. Harris, Esq.).

Mr. Alderman Barbour, J.P.
†Mr. Alderman Booth, J.P.
Alderman Sir Wm. Clemmey, J.P.
Mr. Alderman Johnston, J.P.
Mr. Alderman Jones, J.P.
Mr. Alderman Mack, J.P.
§*Mr. Alderman Pearson, J.P., M.R.C.S.
§*Mr. Alderman Roberts, J.P., L.R.C.P.
Mr. Alderman Smith, J.P.
Mr. Alderman Tomlinson.
Mr. Alderman Turner, J.P., M.A., M.D.
†Mr. Councillor Bailey.
§†*Mr. Councillor Baucher.
†Mr. Councillor Black.
†*Rev. Councillor Blanchard.
†Mr. Councillor Eaton.
†Mr. Councillor Fairlie.
Mr. Councillor Gardner, J.P.
§*Mr. Councillor Grainger.
§†*Mr. Councillor Hackett.
*Mr. Councillor Hankey.
§†*Mr. Councillor Hanlon.
†Mr. Councillor Hughes.
Mr. Councillor Jones.
Mr. Councillor Keenan.
Mr. Councillor Kinley.
§*Mr. Councillor King.
§*Mr. Councillor Lawrenson.
§†Mr. Councillor Mahon.
†Mr. Councillor Mulhern.
†*Mr. Councillor Patrick, J.P.
§*Mr. Councillor Pennington, J.P.
Mr. Councillor Rogers.
Mr. Councillor Sankey.
Mr. Councillor Scholefield.
Mr. Councillor J. Scott.
§†*Mr. Councillor W. Scott.
§†*Mr. Councillor Smith.
†Mr. Councillor Stewart.
Mr. Councillor Vaux.
Mr. Councillor Warburton.
Mr. Councillor Webster.
Mr. Councillor Wolfenden.

* Member of Health Committee.
§ Member of Maternity and Child Welfare Sub-Committee.
† Member of Housing and Town Planning Committee.

HEALTH COMMITTEE.

Chairman—Mr. Councillor Pennington, J.P.
Deputy Chairman—Mr. Councillor Hanlon.

MATERNITY AND CHILD WELFARE SUB-COMMITTEE.

Chairman—Mr. Councillor Pennington, J.P.

This Committee consisted of members of the Health Committee (as indicated), together with the following representatives of the Bootle Health Society:—

Chairman—The Mayoress (Mrs. Harris), (ex-officio).
Honorary Secretary—Mrs. Pearson.
Mrs. J. G. Blackledge. Mrs. K. A. Dodd.

and representatives of the Bootle Insurance Committee:—
Miss H. Clemison. Mrs. E. H. Smith, J.P.

HOUSING AND TOWN PLANNING COMMITTEE.

Chairman—Mr. Councillor Baucher.
Deputy-Chairman—Mr. Councillor Hackett.

STAFF OF THE PUBLIC HEALTH DEPARTMENT.

Medical Officer of Health, Administrative Tuberculosis Officer, and Medical Superintendent of the Corporation Hospitals—
*F. T. H. Wood, O.B.E., M.D., B.S., B.Sc. (Lond.), D.P.H. (Durh.).

Tuberculosis Officer and Deputy Medical Officer of Health—
*Robert Hannah, M.C., M.B., Ch.B. (Edin.), D.P.H.

*Assistant School Medical Officer and Assistant Medical Officer of Health—**Purser Davies, M.C., M.B., Ch.B. (Edin.), D.P.H.

Corporation Hospital, Linacre Lane—
Matron— Miss S. L. Bevan.

Maghull Sanatorium—
*Visiting Medical Officer (Part-time)—**A. Hendry, M.D. (Liverpool)
*Matron—**Miss E. Holden, R.R.C.

Maternity Home:
*Matron—**Miss M. W. Cleary.

Chief Sanitary Inspector, Inspector under the Food and Drugs Acts, and the Housing, Town Planning, etc., Acts, etc.—
[12]R. J. McCulloch.

Sanitary Inspectors—
[12]B. J. Holden. [1]W. Robson. [12]J. Yates.

Clerical Staff—
Chief Clerk - N. Lockwood.
H. A. Brown, O.B.E. Miss Thompson. *Miss Thomas.
*Miss Beattie (Half-time). S. Astley.

Infant Welfare Visitors—
*[346]Miss Stott. *[1]Mrs. McKowen. *[345]Mrs. Meredith.
*[345]Miss Hughes. *[347]Miss Stark.
*[347]Miss Skinner.

*Tuberculosis Nurse—**[7]Miss Kelly.

Ante-Natal Clinic Medical Officer (Part-time)—
*J. St. Geo. Wilson, M.C., Ch.M., F.R.C.S.

1 Certified Sanitary Inspector. 2 Certified Inspector of Foods. 3 Certified Health Visitor.
4 Certified Midwife. 5 Half-time Tuberculosis Visitor. 6 Assistant Inspector of Midwives.
7 Trained Nurse.

* Contributions to salary by Exchequer grants.

Health Department,

Town Hall,

Bootle,

March, 1927.

To the Mayor, Aldermen, and Councillors of the

County Borough of Bootle.

Gentlemen,

I have the honour to present herewith the fifty-fourth Annual Report on the work of the Health Department. In contrast with the "Survey" Report presented last year, which reviewed the sanitary progress of the district since 1920, the present Report is, by the instructions of the Ministry of Health, of the nature of an ordinary Report.

Attention may be directed to the following features of interest during the year:—

(1) A fall in the general death-rate, reducing the local figure almost to the rate for the country as a whole, and constituting the second lowest death-rate recorded in the Borough.

(2) An infant mortality rate of 100, within a few points of which it has stood since 1923. This figure, while a great reduction from the rates of twenty years ago, is still capable of substantial improvement by the more general utilisation of available knowledge on infant care.

(3) A fall in the tuberculosis death-rate, which has fluctuated considerably during the last ten years, but still remains, as in other years, above the figure for the country generally.

(4) A continuance of the low incidence of scarlet fever and diphtheria.

(5) A further increase in the use of the Maternity and Child Welfare Clinics, the working of which has been facilitated by the additional Infant Consultation established in 1925.

(6) Satisfactory progress with the scheme for the substitution of ashbins for ashpits.

(7) Successful participation in health educational activities.

Special attention is directed to the section of the Report dealing with housing wherein an estimate of the remaining need for new house provision is attempted.

It is a pleasure to report the continued good work of the staff of the Department, with special mention of Dr. Hannah, Deputy Medical Officer of Health, Mr. McCulloch, Chief Sanitary Inspector, and Mr. Lockwood, Chief Clerk.

I have the honour to be,

Your obedient Servant,

F. T. H. WOOD,

Medical Officer of Health.

STATISTICAL SUMMARY FOR 1926.

Registrar-General's Estimated Population in July, 1926 ...	84,580
Death-rate per 1,000 of the population	11·9
Birth-rate per 1,000 of the population	22·05
Infantile Mortality per 1,000 births	100
Death-rate from Phthisis per 1,000 of the population ...	1·12
Death-rate from all forms of Tuberculosis per 1,000 of the population	1·47

Area in Acres (inclusive of Dock Estate)	1,947
Area in Acres (exclusive of Dock Estate)	1,610
Population at Census of 1921	76,487
Population per Acre (excluding Dock Estate)	52·5
Number of Houses in the Borough on December 31st, 1926	13,901
Average Number of Persons in each structurally separate dwelling, at Census, 1921	5·64
Number of Births	1,865
Number of Deaths	1,005
Natural increase of the population during the year	860
Number of Deaths of Infants (under the age of one year) ...	187
Death-rate from the seven principal Zymotic Diseases—Smallpox, Whooping-Cough, Measles, Diphtheria, Diarrhoea, Scarlet Fever, and "Fever" (Typhoid, Enteric, and Typhus) per 1,000 of the population	0·92
Death-rate from Diarrhoea and Enteritis, of children under two years, per 1,000 births	18·2

The Rateable Value of the Borough for 1926-27 was ...	£640,393
A Penny Rate on the Borough Fund produced in 1926-27 ...	£2,230

In 1926-27 the Borough Rate was 7/8¾, and the total rates 12/7 in the pound (excluding water rate and charges).

The net cost to the rates of the Health Services during 1926-27 is estimated at £18,482 approximately, equivalent to a rate of 8·32 pence in the pound.

COUNTY BOROUGH OF BOOTLE.

ANNUAL REPORT
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MEDICAL OFFICER OF HEALTH.

I. VITAL STATISTICS.

Population.—At the Census in 1881 the population enumerated was 27,374; in 1891, 49,217; in 1901, 58,556; in 1911, 69,876, and in 1921, 76,487. This last figure was, however, the result of an enumeration in June, when an appreciable number of residents were temporarily out of the district, and the correction applied by the Registrar-General increased the estimated population at mid-year 1921 to 77,800

The Registrar-General's estimate of population at 30th June, 1926, was 84,580, and from this figure the various rates in this Report have been calculated. The estimated number of males was 41,363, and of females 43,217. It may be explained that the Registrar-General's estimate is derived from the 1921 Census population as above corrected after allowing for births, deaths and migration which occurred between the census date and 30th June last. In the absence of definite information regarding migration between localities, the allowance made for this element of movement is necessarily an approximate one, but the method adopted has been applied impartially to all areas of the country.

The validity of the estimate is of serious import as will be seen when giving consideration to the question of new housing provision, and it is an unfortunate fact, bearing out the need for a simple quinquennial enumeration of the population, that its accuracy, which is vital to a right judgment in important questions of policy, should be at all open to doubt. Some estimate of its worth can be obtained by observing that the net increase of population during 1926, i.e., the excess of births over deaths, was 860, being a rate of 10·2 per 1,000 of the population; in 1925 it was 852 or 10·2 per 1,000; in 1924 it was 976, or 11·7 per 1,000; in 1923, it was 929, or 11·4 per 1,000; and in 1922 it was 958, or 12·0 per 1,000. Accepting the estimated population

of 77,800 at the Census of June, 1921, and allowing 565 as the natural increase for the remaining months of that year, one arrives at a population estimate at mid-year 1926 of 82,510, and at 31st December, 1926, of 82,940; the Registrar-General is thus seen to have credited this area with an excess of 1,970 immigrants over emigrants in the six years since the Census.

Births.—During the year 1865 births to Bootle parents were registered, representing a birth-rate of **22·05 per 1,000** of the population, that for England and Wales being 17·8. In 1925 the Bootle birth-rate was 23·3, and for the decennium 1916-25 it was 25·0. There were 885 males and 980 females. It may be noted that the birth-rate, which rose from the abnormally low figures of the war period to a maximum of 29·7 in the first quarter of 1920, has continued to fall from that date, but is well above the figure for the country generally.

This fall, and the extent of its lag behind the general decline in the birth-rate, are shown in the following table:—

	BOOTLE.		ENGLAND & WALES.
	Total Births.	Rate per 1,000.	Rate per 1,000.
1914 ...	2,321	31·7	23·8
1915 ...	2,050	27·6	21·9
1916 ...	2,076	26·8	20·9
1917 ...	1,873	24·4	17·8
1918 ...	1,810	22·5	17·7
1919 ...	1,914	23·9	18·5
1920 ...	2,289	28·6	25·5
1921 ...	2,068	26·6	22·4
1922 ...	2,051	25·7	20·4
1923 ...	1,999	24·5	19·7
1924 ...	1,942	23·4	18·8
1925 ...	1,943	23·3	18·3
1926 ...	1,865	22·05	17·8

The illegitimate births numbered 30, and were 1·6 per cent. of the total; 5 of these were "outward" transfers. In 1925 the total number was 74; in 1924, 50; and in 1923, 56.

Deaths.—The number of deaths registered in Bootle during the calendar year was 830; this number includes the deaths of 36 non-residents which occurred in the borough, 33 of whom died in the Borough Hospital, two in the Liverpool Maternity Home, and one in the Bootle Maternity Home. Three hundred and eleven persons who died in other parts of the country were stated to have been inhabitants of Bootle; these include 253 who died in Poor Law Institutions, 41 who died in Voluntary Hospitals in the City of Liverpool, and 17 in Lunatic Asylums.

When the necessary adjustments in these respects have been made the total number of deaths assigned to Bootle is 1,005, which is a death rate of **11·9 per 1,000** of the population, as compared with 13·1 in 1925 and 11·6 in 1924. The death-rate in Bootle for the decennium 1916-1925 was 14·9, and for 1906-1915, 17·3. The crude death-rate of the 105 great towns of England and Wales during 1926 was 11·6, compared with 12·2 in 1925. The table below sets out recent variations in the local death-rate as compared with the country as a whole:—

Year.	BOOTLE.		ENGLAND & WALES.
	Total Deaths.	Rate per 1,000.	Rate per 1,000.
1914 ..	1,242	17·0	14·0
1915 . .	1,286	17·9	15·7
1916 .	1,279	18·0	14·3
1917 ...	1,213	17·6	14·2
1918 . .	1,429	19·4	17·3
1919 ...	1,154	15·0	14·0
1920 ...	1,136	14·2	12·4
1921 ...	1,010	13·0	12·1
1922 ...	1,093	13·7	12·8
1923 ...	1,070	13·1	11·6
1924 . .	966	11·6	12·2
1925 ...	1,091	13·1	12·2
1926 ...	1,005	11·9	11·6

The death-rate during the first quarter of the year was 13·9, during the second, 10·9; the third, 9·7; and the fourth 13·0.

The number of deaths which occurred in institutions was 435, *i.e.*, 43 per cent. of the total deaths, compared with 43 per cent. in 1925; 39 per cent. in 1924, and 37 per cent in 1923.

Mortality in Relation to Sex.—There were 531 deaths of males, and 474 of females.

Infantile Mortality. There were 187 deaths of infants, compared with 188 in 1925, 192 in 1924, and 170 in 1923. The infantile mortality rate was **100 per 1,000** births, compared with 97 in 1925, 99 in 1924, 85 in 1923, and 97 in the decennium 1916-1925. The rate of infantile mortality amongst males was 110, and amongst females 92. Throughout England and Wales the rate of infantile mortality was 70 per 1,000 births, and in the 105 great towns it was 73.

This important subject is dealt with in detail in a later section on pages 39 and 40.

Fifty-one children died before they were a week old, and a total of 72, or 39 per cent., of all the deaths under one year, occurred in children under the age of one month. This is a neo-natal mortality rate of 38·6 per 1,000.

Child Mortality. In 1926 there were 93 deaths of children aged 1 to 5 years, as compared with 110 in 1925 and 89 in 1924. The principal causes were—respiratory diseases 28; measles 8; whooping-cough 14; tuberculosis 9; diarrhoea 11; and accidents 3.

Uncertified Deaths.—Seventy-one deaths (49 of residents and 22 of non-residents) were the subject of a Coroner's inquest, while in 34 cases the death was registered without certification by a medical man or the Coroner; this is equivalent to 3·4 per cent. of uncertified deaths, as compared with 1·0 per cent. in the country generally.

Causes of Death. The causes of death, classified according to age, are shown in the table on page 54.

Tuberculosis in one form or another was responsible for 121 deaths, or 12·0 per cent. of the total, as compared with 132, or 12·1 per cent. in 1925, and 115, or 11·9 per cent., in 1924. This matter is further dealt with in the Tuberculosis Section of this report.

Pneumonia was responsible for 116 deaths, bronchitis for 72, and other respiratory diseases for 11, making the total deaths from respiratory diseases (excluding tuberculosis) 199, or 19·8 per cent. of the total deaths at all ages, as compared with 232, or 21·3 per cent., in 1925. Influenza was entered as a cause of death in 17 cases, as against 8 in the preceding year.

The group of diseases included under the heading "congenital debility and malformation, including premature birth," accounted for 73 deaths, compared with 70 in 1925. This matter is again alluded to in the Maternity and Child Welfare Section of this report.

The epidemic diseases (excluding influenza), were responsible for 78 deaths, as compared with the average of 104·1 during the preceding ten years. There were 13 deaths from measles, as contrasted with 27 in 1925, 3 deaths from diphtheria, as against 4 in 1925; 23 deaths from whooping cough, as against 16 in the previous year; and 2 deaths from scarlet fever, as against 5. The deaths from diarrhoea and enteritis were 37, as against 44 during 1925; thirty-three occurred in children under two years of age.

Cancer was registered as the cause of death in 95 cases, as contrasted with 94 in the preceding year. This represents a cancer death-rate of 1·12 per 1,000 of the population as compared with 1·01 during the years 1911 to 1920, 0·68 per 1,000 during the first ten years of this century, and with 0·55 during the ten years 1891 to 1900. Considerable attention is being given to the increasing national mortality from malignant disease, and the policy of spreading information as to the early signs of cancer and as to its curability by operation in the early stages is being steadily pursued.

Deaths from violence numbered 32 (including one from suicide); the number in the previous year was 35.

Public Assistance and Medical Treatment—Valuable information as to economic conditions having a bearing on the health of the town is obtained from data kindly supplied by the Clerk to the West Derby Board of Guardians, by the Managers of the three Employment Exchanges situated in Bootle, and by the Clerk to the Bootle Insurance Committee.

It appears that during the year 1926, 1,723 persons (1,143 during 1925) were received from the Borough into the medical institutions of the West Derby Board of Guardians, and £21,569 11s. 8d. was expended in out-door relief to Bootle residents (£25,103 10s. 0d. during 1925). Further, the average number of adult males on the "live" unemployed registers in the last week of each month during the year was estimated to be 5,449 as compared with 6,522 during 1925; average numbers of women and of juveniles were 516 and 405 respectively, as compared with 707 and 802 for 1925.

As regards National Health Insurance, the total number of insured persons in the Borough on 1st October, 1926, was 32,661, or 38 per cent. of the total population. The Insurance Committee's figures of the number of prescriptions made up during the last five years show a very interesting and steady increase from 50,738 in 1921 to 95,665 in 1925, and to 110,373 in 1926, with a corresponding increase in the annual cost of medicines from £1,955 to £3,737.

During the year 1,661 in-patients and 29,109 out-patients were treated at the Bootle Borough Hospital, as compared with 1,650 and 26,252 respectively during 1925. It should be noted that in addition Liverpool Hospitals, both general and special, are attended by Bootle residents.

II. SANITARY CIRCUMSTANCES.

Closet Accommodation and Scavenging.—Every house, with the exception of 23 in the outlying parts of Orrell, is provided with one water closet or more, the conversion of middens having been completed in 1910.

The following is the number of ashbins and ashpits in the Borough; the ashbins were emptied weekly, the ashpits every five weeks, and the middens every eight weeks:—

	1926.	1925.	1924.	1923.	1922.	1921.	1914.
Ashbins ...	7221	6169	5493	5366	5285	4899	4645
Ashpits, single .	1130	1224	1289	1316	1397	1429	1486
Ashpits, double .	3518	3932	4169	4216	4239	4295	4336
Middens, single .	21	21	21	21	21	21	21
Middens, double	1	1	2	2	2	2	2

On 31st December, 1925, there were 13,831 houses in the Borough. In 1,224 houses the provision for the storage of dust, ashes, or house refuse was by way of single ashpits, and in 7,864 houses such provision was by way of double ashpits shared between adjoining houses in all, therefore, 9,088 houses were provided with ashpits from which refuse was emptied at intervals of four to six weeks.

It may be said, accordingly, that the ashpit emptied monthly as contrasted with a portable receptacle or ashbin emptied weekly was until recently the normal provision in Bootle, but action was first taken in 1920 to improve this position by the abolition of ashpits and the substitution of ashbins when the powers obtained under the Bootle Order, 1914, were brought into use.

The conversion of ashpits under these powers was contingent upon the certificate of the Medical Officer of Health that the situation of the ashpit was prejudicial to health; such certificates were given in respect of 301 houses in congested areas with small yard space and the necessary conversions were obtained, costs being shared equally between the Corporation and the owner, but procedure under this Order was abandoned in the middle of 1924.

A further small number of conversions (approximately 100) was voluntarily undertaken by owners without cost to the Corporation following upon notices given for insufficiency of ashpit accommodation (mainly defective roofs or doors), but progress was found to be hindered by the 1907 Bye-Law requiring the substituted ashbin to be fixed in the wall of the back passage, and accordingly in May, 1925, the approval of the Ministry of Health was obtained to a revision of the Bye-Law so as to allow for the provision of an ordinary type of portable bin. It was, therefore, matter for satisfaction that between that date and 30th March, 1926, 435 houses were so dealt with by property owners at no expense to the Corporation.

At the end of 1925 certain property owners intimated to the Health Committee their willingness as and when required to execute repairs to defective ashpits to abolish such ashpits if the Corporation would provide ashbins free. It was felt that such division of cost was equitable, and, in order to obtain experience of the rate with which conversions could be carried out by property owners without hardship, provision was made in the Council's estimates for 1926-27 for the inclusion

of £300, which sum was sufficient to provide 1,000 ashbins. The result was that the work of conversion, which was at the end of 1925 beginning to slow down, received a stimulus, and between 1st April and 31st December, 1926, 736 additional houses were satisfactorily dealt with, making a total of 862 for the year 1926. On this experience, application was made to the Ministry of Health in November, 1926, for the issue of a Provisional Order further amending the Bootle Corporation Act, 1890, Section 50, by conferring powers to require the substitution of portable receptacles for fixed ashpits, and by allowing the Corporation to contribute the whole or a portion of the cost of providing such portable receptacles. A Local Inquiry was duly held on 14th December, 1926, and the decision of the Ministry is now awaited.

The actual position at 31st December, 1926, therefore, was that there were approximately 8,000 houses with ashpits which would be subject to the powers sought in the Provisional Order, and it remains to be decided whether the scheme projected in 1925 of converting 1,000 of these annually shall be proceeded with, or whether borrowing powers shall be exercised and the whole of the work carried out within a short period. The former plan has obvious financial advantages in that the charges for a short period loan would not have to be borne, and is further commended on practical grounds as spreading over the next eight years the cost to the owners of the actual work of demolition of the ashpits and the making good of the freed yard space.

Refuse Disposal—Work was begun during the year on the erection of new plant for the disposal of refuse at the old Pine Grove site, and the new structure was declared open on the 21st February, 1927. The plant, which was built at a cost of approximately £22,500, is worked as a mixed salvage and incineration scheme, and has been constructed in two units having a total grate area of 200 sq. feet.

As the refuse is brought to the Pine Grove Destructor, it is weighed on a weighbridge. It is then tipped into a hopper, in which works a three-foot wide steel conveyor belt, and this conveys the material into a revolving screen of 7/16in. mesh, which takes out approximately 40 per cent. of the dust. The dust is conveyed to another hopper, from which it is poured into barges and motors, and may be used subsequently for farm manure.

The rest of the rubbish is conveyed on a rubber belt, and is picked by youths; it is then carried over a magnetic drum that extracts the tins and delivers them to a baling press, which bales them into containers with a capacity of about 40 lbs. The rest of the refuse continues on the rubber belt to be swept off by ploughs to either of the two units, where it is hand-fed from the hoppers to the back of each furnace. At the front of each furnace clinker is abstracted, carried by a monorail to a crusher, and then passed into a revolving screen, from where it is delivered in three sizes. It is suitable for use in pavings, concrete making, the preparation of mortar, and many similar purposes.

The gases are burnt in a combustion chamber, and pass to the old chimney, which has been re-conditioned.

The dust, ash, and unused clinker residue are deposited on the New Farm site at Melling, and the use for this purpose of the land adjoining H.M. Prison has now ceased.

SANITARY INSPECTION OF THE DISTRICT.

The Staff for this work consists of the Chief Sanitary Inspector, with three assistants, one of whom is engaged principally on special duties mainly in connection with food inspections.

Nuisances.—On page 56 will be found a tabular statement showing the number of inspections made, and notices served by the Chief Sanitary Inspector. It will be noted that the number of defects for which notices were served on owners shows a decrease from 4,840 in the previous year to 4,574 in the year under review; the other work done under the Housing Acts is set out in the Housing Section of this report on pages 46 to 51.

Contagious Diseases of Animals Acts.—The administration of these Acts in so far as relates to the disinfection of premises is in the hands of the Health Department. During the year one case of parasitic mange was reported, compared with three in 1925. The case occurred in a brick stable.

III. SANITARY CONTROL OF THE FOOD SUPPLY.

One of the Sanitary Inspectors holding the special Food Certificate of the Royal Sanitary Institute is engaged for the greater part of his time on work connected with the food supply, the sanitary supervision of which is attempted in order to secure cleanliness in the preparation and distribution of foodstuffs, and to diminish the risk of possible infection thereof with disease-producing bacteria.

Milk and Dairies Order, 1926.—This new Milk and Dairies Order revoked Regulations made under previous Orders by this Authority, and came into force on 1st October, 1926. An important difference in the provisions of the Order is the laying of greater stress on cleanliness in all operations in the production or handling of milk than upon the structure of the building. Powers enabling much needed improvements to be carried out are given for requiring such artificial lighting as will enable the milking to be done in good and proper light; for requiring the protection of milk against dust, dirt, flies, etc.; for prohibiting the cooling of milk in cowsheds, and for dealing with the precautions to be taken in the grooming of the cow and the washing of the milker's hands. Satisfactory progress has been made by the local cowkeepers on all these points, although the small yard space in some instances makes it difficult to provide a cooling shed outside the shippon.

Milk Supply.—That portion of the milk supply of the borough which is not brought in by rail is derived from cows kept in shippons, of which there are now 24 in the town; the cows number approximately 360, a decrease from the pre-war figure of about 550. All the shippons received the careful attention of the Inspector, who paid 210 visits to them during the year.

Attention continued to be given during the year to the important question of the cleanliness of the milk retailed in the Borough. The bacteriological content of the milk as received by the consumer is, it is agreed, a fair index of the care which has been exercised in its production and distribution, and it is satisfactory to be able to record that by such standard the local conditions have shown a decided improvement.

It may be recalled that the Ministry of Health has recognised certain grades of milk, and has prescribed the standard for "Certified Milk" to be that on a sample being taken at any time before delivery

to the consumer, the milk shall be found to contain not more than 30,000 bacteria per cubic centimetre, and no Bacillus Coli—the organism characteristic of contamination with manure—in one-tenth part of a cubic centimetre. The standard for the grade next below this, viz., Grade "A" Milk, prescribes that on a sample being taken at any time before delivery to the consumer there shall be not more than 200,000 bacteria per cubic centimetre nor any Bacillus Coli in one-hundredth part of a cubic centimetre.

The following table sets out the results of bacteriological examination of samples of the Bootle milk supply, both the local product and that brought in by rail:—

CLEANLINESS OF MILK.

No.	Source of Milk.	Time since milking.	B. Coli present in :—	Bacteria per c.c.	B. Tuberculosis
1.	Bootle Shippon	4 hours	1/100,000 c.c.	1,320,000	—
2.	Do.	4 hours	1/100,000 c.c.	128,000	—
3.	Do.	3½ hours	—	40,200	—
4.	Do.	4 hours	1/10 c.c.	No count	—
5.	Do.	4 hours	1/10000 c.c.	20,400,000	—
6.	Do.	4 hours	1/100 c.c.	No count	—
7.	Do.	3 hours	—	22,500	—
8.	Do.	6 hours	1/100,000 c.c.	52,800,000	—
9.	Do.	4 hours	1/10 c.c.	40,800	—
10.	Do.	4 hours	1/100,000 c.c.	3,337,000	—
11.	Do.	5 hours	1 c.c.	188,000	—
12.	"Railway Milk"	18 hours	1/10 c.c.	42,800	—
13.	Do.	Do.	—	80	—
14.	Do.	Do.	1/100,000 c.c.	720,000	—
15.	Do.	Do.	—	5,600	Present
16.	Do.	Do.	1 c.c.	6,600	—
17.	Do.	Do.	1/10 c.c.	333,000	—
18.	Do.	Do.	—	24,400	—
19.	Do.	Do.	1/10 c.c.	12,600	—
20.	Do.	Do.	—	195,200	Present
21.	Do.	Do.	—	18,600	—
22.	Do.	17 hours	1/10,000 c.c.	No count	—
23.	Do.	18 hours	—	243	—
24.	Do.	Do.	1/100 c.c.	257,660	—
25.	Do.	Do.	1/100,000 c.c.	1,281,000	—
26.	Do.	Do.	1/10 c.c.	19,200	—
27.	Do.	Do.	—	3,020	—
28.	Do.	Do.	1/100,000 c.c.	47,300,000	—

It will be seen that in seven instances the standard of "Certified" Milk, and in five instances that of Grade "A" Milk, was reached, and although, of course, the purchasers from the milk dealers supplying these samples could not be guaranteed such a satisfactory article on

other days, the attainment of the standard is distinctly creditable. In nine instances, however, the milk can be described only as grossly contaminated, and suitable action was taken in these cases to bring about an improved state of affairs.

The result of the bacteriological examination of the 28 samples noted above showed that two samples were reported to be infected with tubercle bacilli; necessary action was taken.

Inspection of Meat and other Foods.—As in 1914, there was only one slaughter-house in the Borough, and this was not used during 1926.

The food shops, which received frequent visits of inspection, numbered 659—butchers 74, grocers 125, fish 68, fruit and vegetables 110, bread and flour 66, dining rooms 31, and other food shops 185.

The amount of unsound food detected is shown in the table below —all was voluntarily surrendered, except in two instances of seizure of 2lbs. 10½ozs. of meat. In one of these a prosecution was instituted, and the tradesman was fined £3.

	Tons.	Cwts.	Qrs.	Lbs.	Ozs.
Meat	—	2	0	15	6½
Meat, canned	1	11	3	0	8
Fruit and Vegetables ...	—	2	0	8	10
Fruit and Vegetables, canned	—	18	3	15	14
Condensed Milk	2	3	2	18	12
Fish	—	—	—	—	6
Fish, canned	—	4	0	21	3
Miscellaneous	—	—	1	16	8

Food Factories.—There are thirteen factories in the town; they received 157 visits of inspection. Forty premises are now registered under the Bootle Corporation Act, 1921, as used for the preparation of potted or preserved foods.

Bakehouses.—There are 21 bakehouses (9 being underground), and 24 confectionery bakehouses. Three hundred and ninety-three visits of inspection were paid to them during the year; their general condition is good.

Sale of Food and Drugs Acts.—The Public Analyst is Mr. W. H. Roberts, M.Sc., F.I.C. Table 6 on page 60 shows that 200 samples were taken, of which 100 were milk. The reports show that 10 samples

or 5 per cent., were adulterated or not up to standard. Nearly two-thirds of the samples were taken informally by purchase through an agent, and in cases where adulteration was detected a formal sample was then taken in order that the necessary legal action might be instituted; in 77 milk cases, however, the procedure prescribed by the Act was adopted.

Ten of the milk samples were reported on adversely by the Public Analyst. Of these, three were informal samples, two of which were slightly watered and the third was deficient in fat to the extent of 27 per cent., one of the vendors subsequently was convicted in respect of two formal samples and incurred fines and costs amounting to £8 9s. 0d. for selling milk which had been deprived of 21 and 11 per cent. of fat respectively.

Two were slightly deficient in fat; the vendors were cautioned. In three instances there were deficiencies of 20, 10 and 6 per cent. of fat. The vendor of the last-mentioned sample paid two guineas—the Analyst's fee. Convictions were obtained under the Sale of Food and Drugs Acts in four cases, the resulting fines and costs amounted to £21 0s. 0d.

Twenty-nine of the milk samples were taken at the railway stations in the town, and of these two were slightly watered, and three were 27, 21, and 11 per cent. deficient in fat respectively.

The Public Analyst has kindly supplied me with the result of the analysis of every sample of milk submitted to him from Bootle, and it is interesting to note that, including the samples returned "not genuine," the average amount of fat was 3·57 per cent., and of non-fatty solids 8·86 per cent., the minimum standard fixed by the Board of Agriculture in the Sale of Milk Regulations, 1901, being 3 per cent. fat and 8·5 per cent. non-fatty solids, below which figures milk is presumed to be not genuine.

Three samples of milk (in addition to the above) were obtained at Marsh Lane Railway Station, in course of delivery to a local milk dealer in response to a notice, served on the Chief Sanitary Inspector by an Inspector of the County of Lancaster under the provisions of the Milk and Dairies Consolidation Act, 1915.

Eleven samples of condensed milk were submitted to the Analyst, who certified that they were all genuine and correctly labelled as provided by the Public Health (Condensed Milk) Regulations, 1923.

Forty-eight samples of butter were taken for analysis, and all were found to be genuine.

Public Health (Milk and Cream) Regulations. — One hundred samples of milk were examined under these regulations for the presence of preservatives; none were found. Three samples of preserved cream were submitted for analysis, and all contained less than the maximum amount of preservative allowed by the Regulations.

IV. PREVALENCE OF NOTIFIABLE DISEASES.

Zymotic Diseases.—During the year there were 78 deaths from the seven principal zymotic diseases, which are smallpox, measles, whooping cough, diphtheria, scarlet fever, diarrhoea, and fever (including typhoid, enteric, and typhus). This is a death rate of 0·92 per 1,000 of the population: it compares with a decennial rate for 1916-1925 of 1·36.

The number of cases of infectious diseases notified during the year is briefly summarised below, and fuller detail is given in Table 2, page 53. There was no notification of smallpox, cholera, plague relapsing or continued fever, trench fever, or cerebro-spinal fever.

	Total Cases notified.	Cases admitted to hospital.	Total deaths.
Diphtheria	51	47	3
Scarlet Fever	158	139	2
Enteric Fever (including paratyphoid)	3	2	—
Puerperal Fever	6	5	—
Puerperal Pyrexia	3	1	—
Ophthalmia Neonatorum	21	1	—
Erysipelas	23	13	2
Encephalitis Lethargica	6	1	—
Poliomyelitis	4	3	—
Infantile Diarrhoea (under two years)—voluntarily notifiable ..	104	—	33
Malaria	7	—	—
Dysentery	3	2	—
Influenzal Pneumonia	5	2	—
Acute Primary Pneumonia ...	148	41	53
Tuberculosis—			
(a) Pulmonary	208	110	95
(b) Non-Pulmonary	101	29	26

Scarlet Fever.—One hundred and fifty-eight cases were notified, being a rate of 1·87 per 1,000 of the estimated population, compared with 1·86 in 1925.

During 1926 the case incidence was thus again remarkably low, and two deaths only occurred; the case mortality was therefore 1·27 per cent., and the death-rate per 1,000 of the population was 0·02 as compared with 0·02 for England and Wales. In view of recent experience it is satisfactory to report this favourable comparison.

In each of 16 houses two cases of scarlet fever occurred, and in one house there were three cases.

Return Cases.—During 1926 there were two instances in which the discharge of a scarlet fever patient from hospital was followed by the occurrence of a new case in the home; this was equivalent to a return case rate of 1·5 per cent. of those discharged, as compared with 1·7 per cent. in 1925, and 2·7 in 1924.

The lengths of stay in hospital were 29 and 27 days, and the intervals between discharge and the commencement of the second case were 13 and 3 days, respectively.

Hospital Accommodation.—One hundred and thirty-nine, or 88 per cent. of the cases notified were treated in Linacre Hospital, with a mortality rate, among the cases in which the diagnosis of scarlet fever was confirmed, of 1·6 per cent., as against the figure of 5·4 per cent. in the previous year.

Diphtheria.—The number of cases notified—51, as compared with 72 in 1925 and 58 in 1924, was well below the average of 114 for the ten years ended 1925. The incidence was 0·60 per 1,000 of the estimated population, and the case mortality was 5·9 per cent. Forty-seven cases, or 92 per cent. of those notified were removed to hospital. An examination of the three fatal cases shows that one died on the fifteenth day of the illness after thirteen hours in hospital; the second died at home after five days' illness; while the third death took place in a Poor Law Institution in Liverpool 26 days after admission thereto for another disease. Tracheotomy was not performed in any case.

In the case of diphtheria patients nursed at home, antitoxin is supplied by the Authority.

The occurrence of a secondary case of diphtheria in an infected household was recorded on two occasions.

Smallpox.—Outbreaks of smallpox, mainly of a mild type, continued to arise in various parts of the Midlands and North of England during 1926, but no case occurred in Bootle, although the Medical Officer of Health was consulted in several instances in which smallpox was suspected.

According to information kindly supplied to me by the Clerk to the West Derby Union, 1,671 successful primary vaccinations and 1 successful re-vaccination were performed during the year ended 30th September, 1926, as compared with the previous year's figures of 1149 and 7 respectively; this is a welcome return towards the experience of several years past during which more than 90 per cent. of the infants born received necessary protection.

Enteric Fever.—There were three notifications of enteric fever, one of which was of an officer of the mercantile marine who contracted the disease outside Bootle. The other two cases occurred in children, and no explanation of the origin of the infection could be obtained.

Influenza.—Five notifications of influenzal pneumonia were received, and seventeen deaths from influenza were recorded. There was a limited outbreak of the disease in March and April, followed as usual by pulmonary complications, which were more severe in young children and caused a sharp rise in the number of deaths of children aged one to five years.

Measles.—During 1926 measles caused 13 deaths, compared with 27 in 1925, and an average of 21 during the ten years ended 1925. The Bootle death-rate from this cause was 0·15 per 1,000, compared with 0·09 throughout England and Wales.

Complete information as to the incidence of measles is not now available, but during the year 168 cases occurring in school children were reported under the Bootle Corporation Act, 1920.

Whooping Cough—Whooping Cough caused 23 deaths during 1926 compared with 16 in 1925, and 12 in 1924. The death-rate was 0·27 per 1,000 of the population, compared with 0·10 throughout England and Wales.

Diarrhoea.—Deaths from this disease numbered 37, or a rate of 0·44 per 1,000 of the population as compared with 0·5 last year. Thirty-three of the deaths occurred in children under the age of two years, giving a rate per 1,000 births of 17·7 in Bootle, as compared with 8·7 throughout England and Wales.

The arrangements instituted in previous years by which this disease is notifiable during the third quarter were continued, and 104 notifications were received, as compared with 80 in 1925, 23 in 1924, and 47 in 1923. The receipt of these notifications enabled instruction on the necessary sanitary precautions against the spread of infection to be given by the Infant Welfare Visitors, as well as nursing attention to be given by the Bootle District Nurses' Association; the increase in cases is a reminder of the necessity for constantly teaching the elementary details of correct infant feeding.

LINACRE ISOLATION HOSPITAL.

Linacre Isolation Hospital, by arrangement with the respective authorities, receives cases of infectious disease from the urban districts of Litherland and Formby, as well as from the borough.

The year 1926 continued the exceptionally light experience in the working of the isolation hospital, even when the comparison is with such favourable years as 1923 and 1924. The following table gives particulars of the cases admitted to the infectious disease wards, and shows a continued low figure of scarlet fever admissions. Particulars of cases in which the diagnosis was revised are given in Appendix 12 on page 66.

CASES TREATED IN THE INFECTIOUS DISEASE WARDS, LINACRE HOSPITAL.

DISEASE.	No. in hospital on 1st. January, 1926.				No. admitted during the year.				No. discharged during the year				No. died during the year.				No. remaining in hospital 31st. December 1926.			
	Bootle	Litherland	Formby	Total	Bootle	Litherland	Formby	Total	Bootle	Litherland	Formby	Total	Bootle	Litherland	Formby	Total	Bootle	Litherland	Formby	Total
Scarlet Fever.	7	1	—	8	119	11	1	131	101	10	1	112	1	—	—	1	24	2	—	26
Scarlet Fever complicated by other Disease.	2	—	—	2	8	—	—	8	9	—	—	9	1	—	—	1	—	—	—	—
Admitted as Scarlet Fever but diagnosis revised.	—	—	—	—	12	1	—	13	12	1	—	13	—	—	—	—	—	—	—	—
Diphtheria.	11	1	—	12	25	11	—	36	27	10	—	37	1	—	—	1	8	2	—	10
Diphtheria complicated by other disease.	—	—	—	—	1	1	—	2	1	1	—	2	—	—	—	—	—	—	—	—
Admitted as Diphtheria but diagnosis revised.	3	—	—	3	21	9	—	30	18	8	—	26	1	—	—	1	5	1	—	6
Other Diseases	1	—	—	1	4	1	1	6	5	—	—	5	—	—	—	—	—	1	1	2
TOTALS	24	2	—	26	190	34	2	226	173	30	1	204	4	—	—	4	37	6	1	44

Tracheotomy.—Tracheotomy was not performed on any case during the year.

Cross-infection.—The hospital was particularly fortunate in respect of the amount of cross-infection, and there was no instance of the contraction of a second disease by a patient admitted for one disease only.

Diphtheria Susceptibility and Immunisation.—Further observations with the Schick test were made during the year; this reaction, which indicates whether or not the individual is susceptible to diphtheria, was made use of in the case of 47 of the scarlet fever admissions, and the following table summarises the experience obtained with the test since 1924, and brings out the fact that fewer susceptible children are discovered as the age period advances, owing either to the gradual immunisation produced in town children by repeated exposure to small doses of infection or to the contraction of actual attacks of diphtheria.

SCHICK TESTS.

PATIENTS IN SCARLET FEVER WARDS.

Ages.	Positive	Negative.	Total.
Under 5 years ...	50	31	81
5—10 ,, ...	55	74	129
10—15 ,, ...	12	42	54
15—20 ,, ...	4	11	15
20 years and over ...	1	7	8
Total ...	122	165	287

The Schick test continued to be applied to new probationer nurses either before or as soon as possible after their engagement, and it was found that one of the four gave a positive reaction indicating susceptibility; this nurse was subsequently protected by an injection of toxin-antitoxin. The utility of this procedure, which was commenced in 1923, is obvious from the point of view of the nurse, as well as of the hospital administrator, who in the past has been faced with the difficulty of members of the staff contracting a dangerous infectious disease during the execution of their duty.

Staff Sickness.—The health of the staff was generally good. One nurse contracted scarlet fever and was off duty for 32 days; and a second nurse contracted toxic erythema, and lost 23 days.

Bacteriological Laboratory Work.—

Examination required.	Positive result.	Negative result.	No. of Specimens examined.
Swabs for Diphtheria ...	79	1007	1086
Sputa for Tubercle Bacilli	213	507	720
	292	1514	1806

In addition, 34 samples of milk, 273 specimens for venereal disease, and eleven miscellaneous specimens, were examined by Professor Beattie in the Pathological Department of the Liverpool University.

V. TUBERCULOSIS.

Deaths.—The number of deaths caused by tuberculosis during 1926 was 121, or one death in every eight, giving a death-rate from this cause of 1·47 per 1,000 of the population, as compared with 1·8 in 1925 and 1·4 in 1924; it was 1·8 for the ten years ended 1925.

The tabular statement which follows demonstrates the fact that the borough has a marked excess in tuberculosis incidence over the country generally, an unfavourable circumstance occurring also in neighbouring areas on Merseyside.

TUBERCULOSIS (ALL FORMS).

Year.	BOOTLE			Death-rates in England and Wales.
	Cases notified.	Deaths.	Death-rates.	
1913 ...	375	120	1·6	1·34
1914 ...	325	113	1·5	1·35
1915 ...	319	143	2·0	1·55
1916 ...	324	179	2·3	1·62
1917 ...	267	151	1·9	1·80
1918 ...	228	160	2·2	1·92
1919 ...	203	110	1·4	1·26
1920 ...	216	128	1·6	1·13
1921 ...	299	140	1·8	1·12
1922 ...	284	130	1·6	1·12
1923 ...	302	135	1·7	1·07
1924 ...	302	115	1·4	1·06
1925 ...	319	132	1·8	1·04
1926 ...	309	121	1·5	

Incidence by Age and Sex.—The table below shows that the pulmonary form of the disease is by far the more fatal; that it is commoner in males than in females; and that it is of greater economic importance in that it attacks its subject during the working years of the life-period—it will be seen in this regard that two-thirds of the cases as well as of the deaths from pulmonary tuberculosis occurred between the ages of 20 and 55 years. On the other hand in non-pulmonary tubercuIosis three quarters of the cases and two-thirds of the deaths occurred in children below the age of fifteen years.

TUBERCULOSIS.—Age and Sex Incidence.

AGE PERIODS	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 Year	1	1	1	—	1	—	1	1
1— 5 Years	1	—	14	6	1	—	6	2
5—10 ,,	7	7	13	21	1	1	1	4
10—15 ,,	6	4	14	7	—	1	1	1
15—20 ,,	11	11	2	5	8	4	1	1
20—25 ,,	9	15	1	1	5	6	1	2
25—35 ,,	26	24	4	3	5	11	2	—
35—45 ,,	22	16	1	4	13	8	1	—
45—55 ,,	16	9	—	1	11	5	—	—
55—65 ,,	11	5	—	1	8	3	—	—
65 and upwards	5	1	2	—	2	1	1	—
Totals	115	93	52	49	55	40	15	11

PULMONARY TUBERCULOSIS.

Incidence.—Two hundred and eight new cases were notified during the year to be suffering from pulmonary tuberculosis. The age and sex distribution of the patients will be found on page 61. The numbers notified in the three preceding years were 257, 168, and 236, respectively. In the case of eight the first intimation was obtained from the death returns, while in 29 other cases notification was made at intervals of less than three months before death. The non-notified deaths, therefore, numbered 8·4 per cent. of the total of 95 deaths from pulmonary tuberculosis. Enquiry into these non-notified cases showed the omission to be on the part of private doctors in two instances, and on the part of the medical officers of large Poor Law institutions, asylums or hospitals in the remainder.

Deaths.—During the year 95 deaths were certified to be due to pulmonary tuberculosis, representing a rate of 1·12 per 1,000 of the population, as compared with 1·36 in 1925, and 1·15 in 1924.

Tuberculosis Visitors: Home Visitation—Three tuberculosis visitors, one of whom assists in the medical work of the Dispensary, and two of whom are engaged also on work in connection with Maternity and Child Welfare, are responsible for the sanitary supervision of the homes of notified and suspected cases; they paid 2,346 visits to the homes of persons suffering from tuberculosis in Bootle.

Tuberculosis Dispensary.—Attention continued to be paid to securing the attendance for examination of contacts of notified cases, and during the year 119 were so examined. As a result, 5 were pronounced to be definitely suffering from tuberculosis, 8 were still under observation at the end of the year, 10 ceased attendance before diagnosis was made, while the remaining 96 were considered to be non-tuberculous.

During the year 283 new cases, of whom 126 were sent by private practitioners and 52 by the School Medical Officer for opinion preliminary to notification, were examined at the Dispensary.

The total attendances at the Dispensary during the year numbered 5,655, as compared with 5,778 in 1925; 373 specimens of sputum were examined, giving a positive result in 47 cases.

In pursuance of the policy adopted during the last two or three years, all cases not at the time in need of specialist supervision or treatment (sanatorium, hospital, X-ray, etc.) are referred to their own doctor; such a policy is easy in respect of the insured population, but cannot be followed as safely with the remainder owing to their lack of means. During the year 161 insured patients were referred to their panel doctor for treatment, and touch was kept with them by means of the insurance practitioners' quarterly reports and through the medium of the Tuberculosis Visitor; 421 report forms (G.P. 17) were sent out, and 183 were returned completed.

The Dispensary has no X-ray apparatus, but during the year ten cases were sent by arrangement to the Lancashire County Council's Tuberculosis Dispensary at Seaforth for radiographic examination and report.

Maghull Sanatorium.—During the year 48 patients were admitted to the Institution with an average length of stay of 123 days for the cases discharged during the year.

Linacre Hospital Tuberculosis Pavilion.—During 1926, 62 Bootle cases were admitted to the pavilion, the average length of stay of the 58 cases discharged during the year being 97 days. One Lancashire County Council case was admitted. There were in all 13 deaths in the tuberculosis wards during the year.

Artificial Pneumothorax Treatment — The principle underlying artificial pneumothorax treatment is to obtain collapse of the affected lung by injecting air or nitrogen into the pleural cavity between the chest-wall and the lung, the collapse securing rest of the diseased part and a consequent possibility of healing.

Two new cases have been taken under treatment in the course of the year, both cases of very active disease with hectic temperature. In one of these, owing to adhesions, only a partial pneumothorax was obtained; considerable temporary improvement resulted, but as there were signs of involvement of the other lung the treatment was given up after four months.

In the other case a nearly complete pneumothorax was got with some improvement of symptoms: the case is still under treatment.

The two cases in which improvement was formerly obtained, and which were noted in the last Annual Report, maintained the improvement; one has now left the district, but was working full time until then. The other is still under pneumothorax treatment, this having now (February, 1927) been maintained for 21 months.

Dental Treatment.—The scheme for the provision of dental treatment in cases recommended by the Tuberculosis Officer has been continued, and in all 8 cases completed treatment during the year. The approximate cost of this treatment was £14 15s. 0d., of which the patients' contributions were assessed at £5 15s. 0d.

NON-PULMONARY TUBERCULOSIS.

During the year 101 new cases of non-pulmonary tuberculosis were notified, as compared with 62 during 1925, namely:—45 glands, 15 bones and joints, 21 abdominal, 14 meningitis, 4 cases of lupus, 1 of epididymitis, and 1 of kidney; and there were 26 deaths registered. The agreement with the Leasowe Hospital for Children for the maintenance of six beds for children suffering from non-pulmonary tuberculosis remained in force, and six cases were admitted during the year in place of other six discharged.

The scheme for admission to local general hospitals of adult cases of non-pulmonary tuberculosis, and for payment by the Council of the charges for maintenance and treatment in cases recommended or approved by the Tuberculosis Officer, was continued. During the year eleven such patients have been admitted to the Stanley Hospital, seven to the Bootle Borough Hospital, three to the David Lewis Northern Hospital, and one to the Ellen Gonner Home; seven of these were recommended by the Tuberculosis Officer, and fifteen were subsequently approved by him after admission as urgent cases.

ARTIFICIAL LIGHT TREATMENT.

The scheme of artificial light treatment, confined to exposure of patients to general irradiation, which was commenced at Linacre Hospital on 5th October, 1925, was continued throughout the year by holding daily sessions of approximately one hour duration; 1,803 attendances were made by patients during the year.

The staff, plant and working method remain as described in the last report. The operation time was 270 hours, and the electricity consumption was estimated to be 1,150 units; the cost of carbons used was £24, and the running cost, therefore, equals about 3/6 per hour during which seven or eight patients are treated.

In general it may be said that the results of treatment have proved satisfactory, as the tabular statement below partly demonstrates, and, standing out from the cases which were found to undergo the normal anticipated improvement were several striking instances in which far more than the results expected were in fact obtained. For example, a child just under two years of age was recommended for a course of light treatment on account of rickets, and, more to suit the mother's convenience than with any expectation of effecting much improvement, it was arranged that a younger baby, aged 3 months, suffering from marasmus, should also be exposed to the light; this infant was, at the time of its first attendance in September, 9lbs. 5ozs. in weight, and had a wizened, old appearance, with shrunken features and marked wasting. After a month the child looked normal, was reported by the mother to be feeding and sleeping well, and was almost unrecognisable owing to its having filled out and having gained a healthy colour. The child gained almost six pounds by the end of the year, by which time it had received 29 exposures each lasting half an hour.

On the tuberculosis side also two cases may be singled out for special comment. The first is the patient referred to in the last Annual Report as having suffered since 1922 from tuberculosis of the sacrum and has having been an in-patient at Linacre Hospital since July, 1924, with persistent sinus discharge following upon a series of operations; complete healing was obtained after thirty exposures to light treatment, and the patient was discharged in excellent health in February, 1926, and is now working. The second case is that of a man who had one testicle removed in 1922 on account of tubercular epididymitis. He came under observation in November, 1925, and had then a six months' history of the swelling of the right epididymis, which on first examination was seen to be indurated with at one point a sinus discharging pus; there was also a hydrocele of the cord and tunica vaginalis; light treatment was commenced on 26th November, 1925, with exposures up to an hour daily three times a week; the condition soon showed signs of improvement, and by August, 1926, the swelling of the epididymis had

partly subsided and had become less indurated and the sinus was soundly healed. The general treatment was continued with marked success and the patient was discharged from further treatment in February, 1927.

Results of Artificial Light Treatment.

(a) Tuberculosis.

	No. treated.	Much improved—quiescent.	Improved.	Stationary.	No. under treatment at 31st Dec., 1926
Tubercular Cervical Glands ...	18	2	4	4	8
Scrofuloderma	3	—	2	—	1
Abdominal Tuberculosis ...	1	1	—	—	—
Pulmonary Tuberculosis (Q) ...	1	—	1	—	—
Old Potts Disease and Debility	1	—	1	—	—
Tubercular Spine	1	1	—	—	—
Tubercular Ribs	1	—	—	1	—

(b) Maternity and Child Welfare.

Lesion.	No. treated.	Much Improved.	Improved.	Stationary.	No. under treatment at 31st Dec., 1926.
Rickets	16	—	9	1	6
Debility following Pneumonia .	2	2	—	—	—
Malnutrition	2	—	—	—	2

Note.—Two cases of Tuberculosis and 11 Maternity and Child Welfare cases which ceased treatment after making 6 or fewer attendances are excluded from this summary.

Experience has shown, possibly due to the fact that the current used is from alternating supply, that there is more wear and tear and consequent need of replacement of various parts than had been anticipated; the inconvenience resulting from this is not so much a matter of expense as the annoyance of interruptions of treatment. Further, the non-central position of the Light Treatment premises has militated against regular and continued attendance of infants recommended for treatment under the Maternity and Child Welfare Scheme; this objection of distance obviously applies less in the tubercular cases which are commonly of an age making it unnecessary for them to be accompanied by the mother or other relative.

VI. VENEREAL DISEASES.

The Council's scheme for diagnosis and treatment of venereal diseases through the treatment centre at the Bootle Borough Hospital was continued as in previous years, and three clinics were held weekly for men and two for women and children.

The Annual Statistical Report of the Medical Officer of the Treatment Centre will be found on page 63. It shows 304 persons under treatment on 1st January, 1927, as against 275 on 1st January, 1926, and a slight increase in the number of new cases, the figures being 340 as contrasted with 324 in 1925, and 410 in 1924.

The total attendances for treatment made at the clinic during the year show an increase from 6,620 to 7,004; the figure includes 1,673 attendances made between clinic days for the treatment of gonorrhoea at the irrigation centre. In-patient days totalled 350, as contrasted with 443 during the previous year. During 1926, 23 cases were discharged after completion of treatment and observation, as contrasted with 190 during 1924.

The table below is a statement of the number of cases presenting themselves for treatment since the establishment of the clinic; as explained last year, however, the figures for 1925 and 1926 being compiled on a somewhat different basis, the results are not strictly comparable.

BOOTLE VENEREAL DISEASES CLINIC.

	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.
New Cases (total)	597	495	400	367	360	410	324	340
New Cases (syphilis) ...	245	225	200	183	186	160	92	102
Total attendances (excluding Irrigation Department) ...	4827	5099	4448	4070	3955	4628	4230	5331
Irrigation Department attendances	—	—	785	976	838	1046	2390	1673
In-patient Days	502	309	335	487	289	751	443	350
No. discharged after completion of observation and treatment	177	217	142	136	144	190	190	23

An examination of the cases discontinuing attendance before the condition had been with certainty rendered non-infectious shows that 69 ceased attendance before completion of treatment, and that 49 ceased attendance after completion of treatment but before final tests as to cure; these figures are an improvement on the previous year's experience, but the inference from the former is that one patient in six remained a source of potential danger to the public health.

Bootle residents accounted for one half of the cases under treatment at the Borough Hospital Centre, the Authorities contributing the next largest number of cases being the Lancashire County Council and Liverpool, which together made up a total of one-third.

Educational propaganda work was continued throughout the year by the Merseyside Boroughs Venereal Diseases Education Committee, consisting of representatives of the Health Committees of the four Merseyside Boroughs with their respective Medical Officers of Health. Under the auspices of this organisation films were exhibited and addresses were given at various centres by medical and other speakers, the meetings during Health Week being particularly well attended.

Cost.—The total approximate expenditure on the prevention, diagnosis, and treatment of venereal diseases during the financial year 1926-27 was £1,685, and it is estimated that during 1927-28 the cost will be £1,793; 75 per cent. of these sums will be recoverable from the Ministry of Health.

VII. MATERNITY AND CHILD WELFARE.

Midwives Acts, 1902-1918.—The number of midwives on the local roll is 25, as against 28 in the preceding year; 7 others, resident outside the district, have given notice of their intention to practise in the borough; all are trained. To the above figures may be added seven midwives practising in local Maternity Homes.

Regulations of the Central Midwives' Board require medical help to be sought by the midwife in all cases of illness of the patient, or the child, or of any abnormality occurring during pregnancy, labour, or lying-in, and 304 records of sending for medical help were received. Thirteen of the calls were on account of abnormalities during pregnancy, 222 during labour, 23 during the puerperal period, and 46 for conditions affecting the child.

Under the 1918 Act the Local Supervising Authority is responsible for the payment of fees to doctors called in by midwives, and with the continuance of unemployment in the town the number of such accounts received, in respect of cases where the doctor himself was unable to recover the fee, remained high; 164 accounts, totalling £255 7s. 0d., were sent in, as compared with 182 accounts, totalling £256 12s. 0d., in 1925. In respect of this sum, the contributions to be recovered from the patients were assessed at £57 9s. 3d.

Midwives and Maternity Homes Act, 1926—The Midwives and Maternity Homes Act, 1926, makes it an offence for any person to carry on a Maternity Home unless that person is registered in respect of that Home, and up to the end of the year nine applications from certified midwives for such registration had been received and recommended. The Model Bye-laws in connection with the conduct of Maternity Homes issued by the Ministry of Health have been approved by the Council for adoption.

Payment of Midwives' Fees—As from 1st April, 1922, the Council took over from the Health Society the responsibility for the payment of midwives' fees in approved necessitous cases. Applications in respect of this service are considered with full information as to the family income and outgoings, and are granted only on satisfactory evidence that the applicant is not entitled to maternity benefit under the National Insurance Acts. During the year 10 applications were received and nine were granted.

Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926—These Regulations came into force on 1st October, 1926, and were issued because past experience showed that puerperal fever is ill-defined and had been incompletely notified, and it is hoped by requiring a notification of all cases of puerperal pyrexia (defined as a febrile condition occurring in a woman within 21 days after child birth or miscarriage, in which a temperature of 100·4° has been sustained during a period of 24 hours or has recurred during that period), to secure adequate treatment in the early stages of puerperal infection. In conjunction with the more complete notification the forms prescribed by the Ministry of Health allow the notifying practitioner to call for the provision of trained nurses, for hospital treatment, for a second opinion on the case, or for bacteriological examination. It was accordingly decided to make minor improvements in a ward of one pavilion at Linacre Isolation Hospital to accommodate cases of puerperal infection, and to retain the services of the Consulting Obstetrical Physician to the Maternity Home in cases in which a second opinion was asked for; arrangements for bacteriological examination of suspected material were already in force, as also was the provision of trained nurses from the local District Nursing Association.

Puerperal Infection and Mortality.—Six cases of puerperal fever and three cases of puerperal pyrexia were notified, and no deaths from either cause were registered. In five of the puerperal fever cases delivery had been completed by the midwife in attendance and in one instance by a medical practitioner. Two cases of death during pregnancy or parturition occurred, the causes of death being registered respectively as (1) Septic pneumonia following miscarriage; and (2) Hydatidiform mole, collapse.

The two deaths thus resulting from or in connection with childbirth gave a rate of one maternal death for every 933 births, compared with one for every 389 in 1925, and one for every 194 in 1924.

Milk Assistance Scheme.—The Council's Milk Assistance Scheme, under which dried milk is granted on the Clinic Medical Officer's recommendation to infants, and to expectant and nursing mothers, in necessitous cases falling within a certain income scale, continued in force; it was supplemented to some extent by similar grants from the Bootle Health Society to necessitous cases which the Municipal Scheme was unable to help. In all, milk to the value of £329 11s. 9d. was granted by the Council to infants under 12 months of age and to nursing and expectant mothers, on the advice of the Medical Officer, as compared with £332 17s. 6d. during 1925. The allocation of £350 for this purpose is equivalent to a continuous grant of one pound of dried milk weekly to about 90 of the 1,800 babies under the age of one year.

Ante-Natal Clinics.—The very gratifying progress recorded in the last four Annual Reports in connection with this Branch of Maternity Welfare work has been maintained during the year under review. In 1920 the number of new cases presenting themselves for examination and advice was 180, or 8 per cent. of the total number of births, while during 1926 the number of new cases was 462 or 25 per cent. of the total births; in other words one expectant mother in every four attended for consultation, thus placing the Ante-Natal Clinics of the town on the same relative footing of public appreciation as the Infant Consultations in 1919.

All women in their first pregnancy, all who have had previous miscarriages or difficult labours, and expectant mothers suffering from any abnormality during pregnancy should seek skilled medical advice with a view to the appropriate treatment being obtained before an emergency has arisen.

Dental Treatment of Expectant and Nursing Mothers.—The work has been in the nature of extractions, fillings, and the supply of artificial teeth and during the year 29 cases were treated, at an estimated cost of £36 5s. 0d., of which the patients' contributions were assessed at £15 7s. 6d. Seven cases were carried forward to 1927.

Maternity Home.—During the year 183 patients were admitted to the Maternity Home, the average duration of stay being 14·1 days; the admissions in 1925 numbered 128, and during 1924 they were 114. Sixteen cases were admitted for ante-natal treatment, 132 cases were delivered by the nursing staff, and 35 cases were delivered by doctors. Medical assistance was called by the Matron on one occasion for an ante-natal condition, on twelve occasions during labour, thirteen times for conditions after labour, including eleven cases of ruptured perineum, and twice on account of debility of the infant.

The medical or obstetric indications for admission included:—

Disproportion between pelvis and foetal head ...	5
Ante-partum haemorrhage	3
Albuminuria	2
Eclampsia	1
Previous post-partum haemorrhage	1

There were no cases of ophthalmia neonatorum or pemphigus. All the patients but two left the institution with their babies being breast-fed, the exceptions being cases of debility of the mother.

Only on one occasion did the temperature rise above 100·4° for 24 hours with rise of pulse rate, the cause in this instance being mastitis. There were no maternal deaths; there were 12 foetal deaths (still-born or within ten days of birth), eight in which the child was still-born and four in which the infant died from debility or congenital defects.

The approximate gross cost of the Home in the twelve months ended 31st March, 1927, is estimated to be £1,650, and the net cost to the rates (after deducting patients' contributions, etc., of approximately £475 and Exchequer grant) to be £587.

INFANT WELFARE.

Notification of Births Acts.—The number of births notified under these Acts was 1,640 or 89·0 per cent. of those registered; 1,591 notifications were received from midwives, and 49 from doctors; 179 notifications of live-birth and 4 of still-birth were also received of births to parents who normally resided elsewhore.

The babies were visited shortly after birth by the Infant Welfare Visitors, unless it was considered that suitable advice could be obtained from other sources. A summary of the work of the Infant Welfare Visitors is given on page 65.

Births Registered.—Tlre number of births registered in the district was 1,958, from which 238 are to be deducted as born in Bootle to residents of other districts, and to which are to be added 145 births to Bootle parents temporarily out of the town; the corrected figure is therefore 1,865. Of tlre number registered 25 were illegitimate.

Still-births.—Still-births numbered 63, as compared with 47 during 1925, and 53 during 1924. As full an investigation as possible has been obtained in respect of each such case, and 9 of the foetuses were forwarded for pathological examination.

Infant Deaths.—Tlrere were 187 deaths of infants under the age of twelve months, which, expressed as a rate per 1,000 births, gives an infant mortality rate of 100, compared with 97 during 1925, 99 during 1924, and an average of 97 in the decennium 1916-1925.

The trend of infant mortality in recent years is set out in the table below:—

INFANTILE MORTALITY RATES.

Years.	Bootle.	England and Wales.
1901-05	166 ...	138
1906-10	130 ...	117
1911-15	133 ...	110
1916-20	103 ...	91
1921	96 ...	83
1922	80 ...	77
1923	85 ...	69
1924	99 ...	75
1925	97 ...	75
1926	100 ...	70

There was less difference in the incidence of infant deaths in the various wards than in previous years, the approximate rates varying from 132 in Mersey, 120 in Knowsley, 94 in Derby, down to 86 in Linacre, 83 in Stanley, and 60 in Orrell.

The rate of infantile mortality amongst legitimate infants was 96 per 1,000 births, and amongst the illegitimate it was 400. The more important of the causes of death, which are given in detail on page 55, were prematurity 42, bronchitis and pneumonia 45, atrophy, debility, and marasmus 22, and diarrhoea and enteritis 23.

Neo-Natal Mortality.—Fifty-one children died before they were a week old, and a total of 72, or 39 per cent., of all the deaths under one year occurred in children under the age of one month. This is a neo-natal mortality rate of 38·6 per 1,000 births, and, as the table below shows, represents a stationary condition of affairs over the last twenty-five years:—

Death-Rates per 1,000 Births, of Infants under Four Weeks.

Year	Deaths per 1000 Births	Year	Deaths per 1000 Births	Year	Deaths per 1000 Births	Year	Deaths per 1000 Births
1906	37·3	1911	49·1	1916	29·4	1921	36·3
1907	36·9	1912	40·4	1917	29·4	1922	31·7
1908	37·2	1913	40·6	1918	31·5	1923	35·0
1909	30·5	1914	34·4	1919	35·5	1924	34·0
1910	43·2	1915	31·7	1920	35·8	1925	34·0
Quinquennial Average = 37·0		Quinquennial Average = 39·2		Quinquennial Average = 32·5		Quinquennial Average = 34·2	

Public Health (Ophthalmia Neonatorum) Regulations, 1926—These Regulations came into force on 1st October, 1926, and revised the 1914 Regulations by placing the duty of notifying a case of Ophthalmia Neonatorum solely on the medical practitioner in attendance. Midwives, however, are still required by the rules of the Central Midwives

Board (1) to summon medical assistance in all cases, however slight, of inflammation of, or discharge from, the eyes of a child, and (2) to send a notice immediately to the Local Supervising Authority that such assistance has been sought. In accordance with the suggestion of the Ministry of Health, and in order that nothing should be done that would be likely to deter the midwife from promptly seeking medical aid in these cases, the Council have decided in future to take no action to recover fees paid by them to medical practitioners answering such calls.

Twenty-one cases were notified during the year, compared with 37 in 1925, 34 in 1924, and 31 in 1923, the rates per 1,000 births being 11·3 for 1926, 19·0 for 1925, and 17·5 for 1924. The disposal of the cases and the results are shown in the table below:—

Cases.							
Notified.	Treated.		Vision Unimpaired.	Vision Impaired.	Left the District.	Total Blindness.	Deaths.
	At Home.	In Hospital.					
21	20	1	20	—	1	—	—

Health Visiting Staff.—Six officers devote themselves to the work of health visiting, two of them, however, giving half their time to tuberculosis visiting, and a third one-quarter of her time to the School Medical Service; the establishment is, therefore, equivalent to 4¾ whole-time visitors. Unfortunately one of the whole-time Infant Welfare Visitors was absent owing to sickness for nine months of the year, and the statement of work done given in Appendix 10 on page 65 shows a proportionate reduction in all branches of the work when compared with the previous year. The reduction is regrettable, as considerable importance is attached to the value of the advice given by these trained health workers in the home to expectant and nursing mothers on points exercising their minds from time to time. As it was, the staff available allowed on the average of the payment of only three visits to each infant under one year, three visits each to infants in their second year, and less than one visit to each child between the ages of two and five years. In all, 15,960 visits were paid, as compared with 17,920 during 1925.

Infant Welfare Clinics.—As was noted in the last Annual Report an additional weekly consultation was established in October, 1925, making four consultations weekly at the three Centres maintained by the Bootle Health Society, and this addition had the expected result of adding to the comfort and efficiency of the sub-divided Clinic, and of leading to an increase in the numbers attending.

The number of new infants presented for examination and advice during the year was 930, as compared with 869 during 1925 and 957 in 1924; the total attendances throughout the year were the largest yet recorded, and showed an increase to 17,080 from the 14,539 registered in 1925 and 16,484 registered in 1924. The average attendance at each meeting was 118 at St. Matthew's Hall, 87 at the Marsh Lane Clinic, 87 at the old weekly consultation at the School Medical Offices, and 45 at the newly established consultation in that building.

It is gratifying to be able to report that the financial year 1927-28 will see the largest of these Clinics, viz., that at St. Matthew's Hall, sub-divided by the holding of an additional weekly session.

The Sewing Classes held in connection with the Balliol Road and Marsh Lane Clinics continued their excellent work in giving instruction and help in the making up of infants clothing. As has been said before, a large extension of this work is desirable, as inculcating self-help in a direction likely to lead to improvement of the health and comfort of infants and young children.

Cost.—The estimated net cost of all the above Maternity and Child Welfare Services during the financial year 1926-27 was £3,669; the estimated net expenditure during 1927-28 is £3,834; 50 per cent. of these sums will be recoverable in grant from the Ministry of Health.

Bootle Health Society.—Gratitude is again expressed to this voluntary Society for its helpful co-operation with the Health Department in the work of promoting maternity and child welfare. The Health Society supplies the non-professional workers at each of the six clinics held weekly throughout the year; is entirely responsible for the conduct of the Sewing Classes; and helps necessitous cases by the loan of maternity bags, the provision of fireguards, and by the gift of dried milk in cases not eligible under the Council's milk assistance scheme.

VIII. PUBLIC HEALTH EDUCATION.

Efforts to promote the common health by enlisting the help of the individual and inducing him to follow the simple rules of healthy living in order to promote his own personal health and fitness were continued throughout the year. Under the auspices of the Merseyside Boroughs Health Education Committee addresses were given at intervals to various social and educational organisations, and advantage was taken of the valuable help afforded from time to time by the local press in accepting articles dealing with some aspect of health having topical interest.

The principal educational activity of the year, however, was the participation in "Health Week" on somewhat different lines from those followed on a previous occasion in 1922. A special lecturer, having at his disposal public health films and an experienced cinematograph operator, was engaged from the British Social Hygiene Council, and a very successful series of public meetings was held in the week commencing 8th March. The subjects dealt with by addresses and films were as varied as possible, and included Ante-Natal Welfare, Infant Welfare, Venereal Disease, the Care of the Teeth, the House-fly, Milk, and Tuberculosis. A large mass of leaflets dealing with these and similar health matters was distributed at each meeting.

(*a*) The evening meetings in the Town Hall received increasing support with estimated attendances of 350, 500, 1,100 and 1,100 respectively; the Wednesday afternoon meeting, for women only, was even more packed, both the body of the hall and the gallery being completely filled and a number of the audience having to stand—an estimated attendance of 1,200.

(*b*) Dinner-hour meetings were held at Harland & Wolff's works on Monday, and the Gas Works, Litherland Road, on Tuesday, but for various reasons the attendances were low—80 and 30 respectively. These dinner-hour meetings were transferred to the open-air at the junction of Regent Road and Strand Road on Wednesday, and on the first day an attendance of 600 was recorded, and the lecturer was requested to commence ten minutes earlier on the following days and to be prepared to deal with questions; the Thursday and Friday audiences again numbered approximately 600.

(*c*) Short addresses were given on three afternoons to the mothers in attendanee at the Infant Welfare Centres, and were heard by approximately 200 women.

(*d*) As regards the children, some 5,000 of the older scholars of the elementary schools received a short address and saw health films, those from the south half of the Borough attending the Town Hall and the remainder attending the Gainsborough Pieture House, on four evenings.

The "Health Week" eoneluded with two meetings on Sunday, 14th March, at the Gainsborough Pieture House, one in the afternoon for men only, and an evening meeting adapted for a mixed adult audience. The afternoon meeting was attended by 900 men, while in the evening the hall was filled to overflowing some time before the advertised time of commeneement, with an estimated attendance of 1,800. In all it may be confidently stated that this series of public meetings, attended by about 5,000 children and 9,000 adults, having as its objeet the stimulation of public interest in health and getting the public to realise that the maintenance of health is a partnership function in which both the Local Authority and the individual have equally important duties, was a striking suecess as measured both by the very large attendances and by the interest shown by the audiences.

In conjunetion with such mass instruetion, and undoubtedly helped by it, individual instruetion in the home has been continued throughout the year by the Health Visitors. The visits paid by these officers, although necessarily in part devoted to formal enquiries, are in the main meant to afford opportunities for trained publie health workers to give individual members of the public help and information on points exercising their minds at the time; advice is thus given on the feeding or clothing of the infant, its nursing in minor infeetious disease, the safeguarding of the family against infeetion with tubereulosis, the eare of the expectant mother, and the reassurance of the relatives of people who have succumbed to eaneer. Adviee on these points is supplemented in several eases by the giving of leaflets, the form of whieh is varied from time to time.

IX. NURSING ARRANGEMENTS, HOSPITALS, AND OTHER INSTITUTIONS AVAILABLE FOR THE DISTRICT.

Professional Nursing in the Home.—The services of the Bootle District Nurses' Association are available for the nursing in their own homes of patients suffering from puerperal fever, measles, whooping cough, epidemic diarrhoea, ophthalmia neonatorum, pneumonia, and poliomyelitis; information as to cases requiring such attention is derived from the health visiting staff, and the financial arrangements with the Association provide for payment by the Council of an annual retaining fee of £35, together with a charge of 8d. per visit in approved cases. The classification of such work by the District Nurses' Association follows:—

	Carried over from 1925.	New Cases.	Total.	Total Visits.	Died.	Improved.	Under treatment at end of 1926.
Ophthalmia Neonatorum ...	4	51	55	1107	2	51	2
Pneumonia	2	10	12	180	5	6	1
Diarrhoea	—	19	19	363	1	18	—
Worms	1	8	9	84	—	9	—
Other Diseases	—	5	5	73	1	4	—
Totals	7	93	100	1807	9	88	3

Midwives.—Thirty-nine midwives signified their intention to practise within the district during the year commencing 1st January, 1926. Apart from the Staff of the Municipal Maternity Home, there is no direct employment of or subsidy to practising midwives, although since 1st April, 1922, responsibility has been accepted for the payment of the midwife's fee in such cases as are sanctioned by the Maternity and Child Welfare Sub-Committee after consideration of the patient's income, size of family, etc.

Clinics, Treatment Centres, and Hospitals.—The various clinics in connection with Maternity and Child Welfare, Venereal Diseases, Tuberculosis, and the School Medical Service remain as described in the last Annual Report. The same remark applies to the hospitals provided or subsidised by the Local Authority.

Ambulance Facilities.—Infectious cases are removed to hospital in one or other of the two motor ambulances belonging to the Authority; the older vehicle, which had been purchased second-hand in 1918, ceased to be used for the conveyance of patients in June, when a new motor ambulance was purchased. Non-infectious and accident cases are dealt with by two ambulances belonging to the Bootle Borough Hospital, driven under arrangements by members of the Fire Brigade.

X. HOUSING.

Housing and the Public Health. — The importance of adequate housing in the maintenance of a decent standard of public health, is fundamental, and insufficient or unsuitable housing accommodation will tend to stultify other health efforts made on behalf of the average person. A warning must, however, be entered against a tendency to use unsatisfactory housing as a sufficient explanation of all our health evils, in the production of which many and various factors play their part.

Consider in this connection that at the census of 1911, there were 5·63 persons per inhabited building in Bootle, and the annual death-rate was 18·3 per 1,000; in spite, however, of the number of persons per house being the same at the 1921 census, the death-rate had by then fallen to 13·0. Or take the (civil) national death-rate during the war period, which for the five years 1914-19 was 15·1; and remember that those years were characterised in their later stages at any rate by a restriction of desirable elements in the national dietary; and contrast that death-rate of 15·1 with the 12·2 per 1,000 for the five years 1920-24, during the first part of which period money and food were relatively plentiful, but overcrowding was increased by the return of several million demobilised service men.

Or, again, take the specific disease tuberculosis, a disease which is the product of two sets of circumstances—an adequate dosage of infection and conditions favouring or impeding the successful invasion of the disease. At all ages from 25 years onwards the Registrar-General shows that the death-rate from pulmonary tuberculosis is higher for males than for females, which is equivalent to saying that men are exposed to infection, or inimical influences which bring infection into dangerous activity, to a much greater extent than are women. If unsuitable housing is the sole, or even the main, adverse influence, the reverse sex incidence should obtain, owing to the longer hours spent by the housewife in the home; and the excess in males can accordingly only be regarded as evidence that the more important sources of danger are not domestic, but industrial, through place or nature of occupation, and convivial, through resort to a public house, both of which dangers women commonly escape.

Housing Progress during 1926.—During 1926 seventy-four houses were erected under the municipal housing scheme, while three houses were demolished in Mersey Ward and one in Orrell Ward. Work has also been commenced on the construction of further 150 houses, and provision has been made in the estimates for the erection of additional 50 houses during the financial year 1927-28. At 31st December, 1926, the number of houses in the Borough was 13,901.

The following tabular statement shows what has been accomplished by the Council's housing schemes:—

Number of houses completed during			1920 ...	26
,,	,,	,,	1921 ...	76
,,	,,	,,	1922 ...	200
,,	,,	,,	1923 ...	Nil.
,,	,,	,,	1924 ...	3
,,	,,	,,	1925 ...	98
,,	,,	,,	1926 ...	74

The Need for New Houses.—It is opportune at this stage to consider an estimate of the further need for new houses in Bootle, and in attempting this one finds several alternative methods of framing the estimate, all of which give different answers, of which none can be accepted with certainty as being correct. But there need be no perturbation at this inability to give a precise answer to what is at the present stage an academic question, for all methods indicate an existing need at least equal to the number which it has been found possible to supply during the last seven years, and it seems clear that the provision already made may be repeated, with the knowledge that the needs then remaining will be not only smaller but easier to gauge.

In the first place the census of 1901 showed that there were in Bootle 11,043 buildings used as dwellings, of which 623 were uninhabited at the date of the enumeration; these dwellings were occupied by 11,625 private families, leaving 1,205 such families, or 10·6 per cent. of the whole, without separate dwellings. At the 1911 census the buildings used as dwellings had increased to 13,413, of which 1,011 were

returned as uninhabited at the date of the enumeration; those dwellings were occupied by 13,873 private families, leaving 1,471, or again 10·6 per cent., such families without separate dwellings. At the 1921 census enumeration the wording of the headings was slightly modified, and for the first time the expression "structurally separate dwelling" came into use. This need not invalidate, however, the comparative use of the figures, which showed that 13,520 structurally separate dwellings existed, of which 200 only were uninhabited at the date of enumeration, and that those dwellings were occupied by 15,650 private families, leaving 2,130, or 15·6 per cent. such families without separate dwellings.

These figures have been submitted as having a very important bearing on the statement correctly made that a proportion of the population have always either preferred, or been compelled from economic reasons, to share houses with other families. Those who do this from preference include the newly-married couple, the elderly couple whose family has left them, and the family in which the seafaring occupation of the husband takes him away from home for long periods; those who do this from compulsion will be proportionately more numerous in towns like Bootle, where reliance for the support of life has to be placed by so many of the population on the returns from casual labour. Accepting this position without prejudice, it has been shown above that the censuses of 1901 and 1911, when there were a large number of empty houses in Bootle, gave 10·6 per cent. of the families in the town as sharing houses; but in 1921, when the number of empty houses was negligible, this proportion had risen to 13·6 per cent. without any evidence being available that the constitution of the population had altered, and it is, probably, a safe inference that those additional 3 per cent. shared houses unwillingly, and were prospective tenants of new houses if such had been available.

The enumerated population of Bootle at the census of 1901 was 60,325, at 1911 it was 69,876, and at 1921 it was 76,487, but now one has to leave the region of official *enumeration* and rely on *estimates* of population framed by the Registrar-General from information as to the excess of births over deaths locally in each area, and as to the difference between immigration and emigration for the country generally. At mid-year 1926 this figure was estimated to be 84,580. As was stated on page 8 the accuracy of this last figure is open to question,

and solely for the purpose of arriving at a safe judgment of the need for new houses, the next calculation is based on the view that the Registrar-General has over-estimated the local population which we will assume for this purpose to be approximately 82,000 (v. page 9).

	Census Enumerations.			Special Estimate.
	1901.	1911.	1921.	1926.
Population	60,325	69,876	76,487	82,000
Persons per inhabited dwelling	5.78	5.63	5.64	—
Buildings used as dwellings—				
Inhabited	10,420	12,402	13,320	—
Uninhabited	623	1,011	200	—
Total ...	11,043	13,413	13,520	13,901
Private families	11,625	13,873	15,650	17,083
Families without separate dwelling—				
Number	1,225	1,471	2,130	3,181
Percentage ...	10.6	10.6	13.6	18.6

Working now on this 82,000 population, which on the census experience of 4·8 persons per family, is equivalent to 17,083 private families, we find that there are now 3,181, or 18·6 per cent., of the families in Bootle without a separate dwelling. Leaving 10·6 per cent. of the population to live in shared houses, as was their custom in 1901 and 1911, and allowing for new houses erected up to the end of 1926, we arrive at an estimate of the still remaining need of 1,371 new houses. Of course, if the Registrar-General's population estimate is correct, then this figure will be largely increased, but, as was suggested in the last Annual Report, there is no urgent necessity to pin oneself down to a precise estimate of need, and it seems sufficient to say, as was then remarked, that all are agreed that the new housing provision made during the last seven years can be repeated without risk of over-building.

It need hardly be re-stated that the above estimate of the need of 1,371 new houses is academic, and that the extent to which it is accepted as a basis for action will be determined by judgments as to the permanency of the population growth, which in turn will be influenced by local conditions of trade and employment.

Housing (Inspection of District) Regulations, 1910.—The programme of routine inspection of working class property outlined in the Survey of Housing Needs returned to the Ministry of Health in 1919 was completed during 1924, and since then the course has been adopted of carrying out routine inspections of similar types of property and of dealing with defects so found by means of the nuisance clauses of the Public Health Acts rather than under the Housing Acts. On this plan 3,016 houses have been inspected, and necessary action has been taken during the year.

A statistical summary of information concerning the action taken with reference to housing conditions follows:—

UNFIT DWELLING-HOUSES.

I. *Inspection.*

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) 3016

(2) Number of dwelling-houses which were inspected, and recorded under the Housing (Inspection of District) Regulations, 1910 ... ... —

(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ... ... —

(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation 2913

II. *Remedy of Defects without Service of formal Notice.*

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers 2039

III. *Action under Statutory Powers.*

A. Proceedings under section 3 of the Housing Act, 1925—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs ... ... Nil

(2) Number of dwelling-houses which were rendered fit—

(*a*) by owners ... ... Nil

(*b*) by Local Authority in default of owners ... ... Nil

(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close ... ... Nil

B. Proceedings under Public Health Acts—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 843

(2) Number of dwelling-houses in which defects were remedied—

(a) by owners 758

(*b*) by Local Authority in default of owners 21

C. Proceedings under section 11 of the Housing Act, 1925—

(1) Number of representations made with a view to the making of Closing Orders ... ... Nil

(2) Number of dwelling-houses in respect of which Closing Orders were made 3

(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit Nil

(4) Number of dwelling-houses in respect of which Demolition Orders were made ... ... Nil

(5) Number of dwelling-houses demolished in pursuance of Demolition Orders ... ... Nil

VITAL STATISTICS OF WHOLE DISTRICT DURING 1926 AND PREVIOUS YEARS.

YEAR.	Population estimated to middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT			
		Uncorrected Number.	Nett.						UNDER ONE YEAR OF AGE		AT ALL AGES.	
			Number.	Rate.	Number.	Rate.*	of Non-residents registered in the District.	of Residents not registered in the District.	Number.	Rate per 1,000 Nett Births	Number.	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1914.	73,230	2,279	2,321	31·7	1,033	14·1	54	263	286	123	1,242	17·0
1915.	Civil 71,617 Total 74,285	2,023	2,050	27·6	1,054	14·7	62	294	292	142	1,288	17·9
1916.	Civil 71,135 Total 77,396	2,047	2,076	26·8	1,101	15·5	80	258	227	109	1,279	18·0
1917.	Civil 68,871 Total 76,772	1,853	1,873	24·4	1,023	14·1	91	281	187	99	1,213	17·6
1918.	Civil 73,500 Total 80,500	1,781	1,810	22·5	1,224	16·6	63	268	210	116	1,429	19·4
1919.	Civil 77,000 Total 80,500	1,860	1,914	23·9	988	12·7	79	245	184	96	1,154	15·0
1920.	80,029	2,285	2,289	28·6	1,000	12·5	59	195	223	97	1,136	14·2
1921.	77,800	2,142	2,068	26·6	817	10·5	43	236	198	96	1,010	13·0
1922.	79,750	2,144	2,051	25·7	877	11·0	42	258	164	80	1,093	13·7
1923.	81 580	2,159	1,999	24·5	858	10·5	50	262	170	85	1,070	13·1
1924.	83,130	2,078	1,942	23·4	799	9·6	59	226	192	99	966	11.6
1925.	83,260	2,077	1,943	23·3	820	9·8	53	324	188	97	1,091	13·1
1926.	84,580	1,958	1,865	22·05	830	9·8	36	311	187	100	1,005	11·9

* These rates are based on the uncorrected numbers.
Area of District in acres, (land and inland water)—1,947.

Appendix 2.

CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1926.

Notifiable Diseases.	Number of Cases Notified.								Total Cases Notified in each Locality (e.g., Parish or Ward) of the District.					
	At all Ages.	At Ages—Years.							Derby Ward.	Stanley Ward.	Mersey Ward.	Knowsley Ward.	Linacre Ward.	Orrell Ward.
		Under 1 year	1 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.						
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera-Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria (including Membranous Croup)	51	—	15	28	8	—	—	—	8	8	11	8	14	2
Erysipelas	23	—	1	—	3	10	6	3	2	4	1	5	7	4
Scarlet Fever	158	2	33	105	13	5	—	—	53	17	14	28	30	16
Typhus Fever...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	3	—	—	2	—	1	—	—	—	—	1	—	2	—
Relapsing Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	6	—	—	—	3	3	—	—	—	1	2	3	—	—
Puerperal Pyrexia ...	3	—	—	—	—	3	—	—	—	1	—	—	2	—
Cerebro-spinal Meningitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis	4	—	2	1	—	—	1	—	1	1	1	1	—	—
Ophthalmia Neonatorum ...	21	21	—	—	—	—	—	—	1	4	6	2	5	3
*Infantile Diarrhœa	104	53	51	—	—	—	—	—	5	—	43	26	27	3
Influenzal Pneumonia ...	5	1	—	—	1	3	—	—	1	—	2	—	2	—
Acute Primary Pneumonia ...	148	21	59	14	14	24	14	2	11	2	45	19	65	6
Trench Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria	7	—	—	—	1	5	1	—	—	—	1	1	4	1
Encephalitis Lethargica ...	6	—	—	—	2	1	3	—	1	2	—	1	1	1
Dysentery	3	—	—	2	—	1	—	—	—	—	2	—	—	1
Totals	542	98	161	152	45	56	25	5	83	40	129	94	159	37

* Voluntary notification of cases under the age of two years during July, August and September.

Isolation Hospital or Hospitals, Sanatoria, etc.:—Corporation Hospital, Linacre Lane, Bootle; Bootle Sanatorium, Maghull.

CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1926.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESIDENTS" IN INSTITUTIONS IN THE DISTRICT
	All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 and upward.	
All causes { Certified	971	177	60	32	35	52	108	232	269	121
All causes { Uncertified	34	10	1	..	3	2	2	7	9	3
Enteric Fever	..	..	..	..	..	..	..	..	..	..
Small-pox	..	..	..	..	..	..	..	..	..	..
Measles	13	5	5	3	..	..	..	..	..	..
Scarlet Fever	2	..	1	1	..	..	..	..	..	2
Whooping Cough	23	9	9	5	..	..	..	..	..	..
Diphtheria and Croup	3	..	..	2	1	..	..	..	..	1
Influenza	17	1	2	1	..	2	2	3	6	2
Erysipelas	2	..	..	..	..	..	1	..	1	..
Phthisis (Pulmonary Tuberculosis)	95	1	..	1	3	23	37	27	3	16
Tuberculous Meningitis	12	1	3	3	3	1	1	..	..	5
Other Tuberculous Diseases	14	1	1	1	4	4	2	..	1	2
Cancer, malignant disease	95	..	..	..	..	1	6	54	34	7
Rheumatic Fever	6	..	..	..	1	1	2	2	..	1
Meningitis	3	2	..	..	..	1	..	..	..	..
Organic Heart Disease	62	..	..	..	4	5	7	25	21	1
Bronchitis	72	8	2	1	..	1	9	15	36	2
Pneumonia (all forms)	116	37	19	6	5	4	11	20	14	18
Other diseases of respiratory organs	11	1	..	..	1	..	1	6	2	..
Diarrhœa and Enteritis	37	23	10	1	..	..	..	1	2	6
Appendicitis and Typhlitis	1	..	..	..	..	1	..	..	..	1
Cirrhosis of Liver	1	..	..	..	..	..	..	1	..	..
Alcoholism	..	..	..	..	..	..	..	..	..	..
Nephritis and Bright's Disease	30	..	..	..	1	1	1	14	13	2
Puerperal Fever	..	..	..	..	..	..	..	..	..	..
Other accidents and diseases of Pregnancy and Parturition	2	..	..	..	..	..	2	..	..	4
Congenital Debility and Malformation, including Premature Birth	73	73	..	..	..	..	..	..	..	8
Violent Deaths, excluding Suicide	31	1	..	3	6	4	4	11	2	24
Suicide	1	..	..	..	..	..	..	1	..	..
Other Defined Diseases	263	22	7	4	7	5	22	59	137	18
Diseases ill-defined or unknown	20	2	2	..	2	..	2	6	6	4
Totals	1005	187	61	32	38	54	110	245	278	124

SUB-ENTRIES INCLUDED IN ABOVE FIGURES.

Cerebro-spinal Fever	..	..	..	..	..	..	..	..	..	..
Poliomyelitis	..	..	..	..	..	..	..	..	..	..
Broncho-pneumonia	63	33	16	3	2	..	2	3	4	11
Venereal Diseases	4	2	..	..	..	..	1	1	..	..
Cerebral Hæmorrhage	27	1	..	..	..	..	..	3	23	..
Arterio-Sclerosis	29	..	..	..	..	..	..	2	27	1
Senile Decay	38	..	..	..	..	..	..	..	38	..
Tetanus	..	..	..	..	..	..	..	..	..	..
General Paralysis of Insane	3	..	..	..	..	..	2	1	..	..
Aneurism	..	..	..	..	..	..	..	..	..	..
Locomotor Ataxy	..	..	..	..	..	..	..	..	..	..

INFANT MORTALITY.

1926. Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.	Under 1 week.	1—2 weeks.	2—3 weeks.	3—4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under One Year
All Causes {Certified	46	11	5	3	65	25	26	29	32	177
{Uncertified	5	1	—	1	7	1	1	—	1	10
Small-pox	—	—	—	—	—	—	—	—	—	—
Chicken-pox	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	1	—	3	1	5
Scarlet Fever	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	1	5	3	9
Diphtheria and Croup	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	—	—	—	—	—	—	—
Tuberculous Meningitis	—	—	—	—	—	—	—	1	—	1
Abdominal Tuberculosis	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases	—	—	—	—	—	—	—	—	2	2
Meningitis (*not Tuberculous*)	—	—	—	—	—	—	—	2	—	2
Convulsions	3	1	1	—	5	—	1	1	2	9
Laryngitis	—	—	—	—	—	—	—	—	1	1
Bronchitis	—	—	—	—	—	5	1	2	—	8
Pneumonia (all forms)	—	1	—	—	1	5	13	7	11	37
Diarrhœa	—	—	—	—	—	1	1	2	4	8
Enteritis	2	1	1	—	4	—	2	4	5	15
Gastritis	—	—	—	—	—	1	—	—	—	1
Syphilis	—	—	—	—	—	2	—	—	—	2
Rickets	—	—	—	—	—	—	1	—	—	1
Suffocation, overlying	—	—	—	—	—	—	—	—	—	—
Injury at Birth	2	—	1	—	3	—	—	—	—	3
Atelectasis	—	—	—	—	—	—	—	—	—	—
Congenital Malformations	3	2	2	—	7	1	1	—	—	9
Premature Birth	30	4	—	3	37	5	—	—	—	42
Atrophy, Debility and Marasmus ..	7	3	—	1	11	4	5	—	2	22
Other Causes	4	—	—	—	4	1	1	2	2	10
Totals	51	12	5	4	72	26	27	29	33	187

Nett Births in the year { legitimate infants ...1,840 / illegitimate infants... 25

Nett Deaths in the year { legitimate ... 177 / illegitimate... 10

APPENDIX 5.

SUMMARY OF WORK DONE BY THE SANITARY INSPECTORS.

NUISANCES—

No. of complaints made by inhabitants		1966
No. of nuisances discovered on above complaints		3241
No. of nuisances discovered on house to house inspections		1539
No. of re-inspections of nuisances		15465

Notices to owners—

Choked and defective drains	419
Choked and defective downspouts and raingutters	539
Defective roofs	904
Defective yard surfaces	316
Defective water pipes	140
Other defects	2256

Notices served on occupiers—

Overcrowding in rooms	15
Dirty conditions	21
Removal of fowls and other animals	9
Removal of manure	4
Removal of rubbish	11
Non-separation of sexes	2
Removal of living vans from Fernhill Road Tip	12

No. of defective ashbins renewed	76
No. of informations laid	1
No. of Magistrates' Orders obtained	—
Amount of fines	3/6

CINEMATOGRAPH SHOWS—

There were 5 picturedromes in the town, and they received 67 inspections.

CANAL BOATS—

No. of canal boats inspected	151
,, infringements *re* certificates	7
,, other defects	8
,, Notices sent in respect of same	6
,, defects or infringements where necessary work was done without service of notice	8

COMMON LODGING HOUSES—

No. of inspections	150
No. registered under the Public Health Act, 1875	3
No. of informations laid in respect of infringements	—

STEPS TAKEN TO PREVENT NUISANCE FROM SMOKE—

No. of observations made	47
,, intimations sent	3
,, notices served in respect of excessive black smoke	—
,, informations laid	—
Amount of fines and costs	—

DAIRIES, COWSHEDS, AND MILKSHOPS—

No. of milkshops on register	37
,, shippons with dairies attached	24
,, inspections made—shippons 210, milkshops 320	530

The occupiers of shippons and milk shops have from time to time been verbally cautioned with regard to the cleanliness of the premises and the cows, the proper storage of milk, and the covering of milk vessels.

FOOD INSPECTION—

No. of visits to foodshops	1792
Amount of food seized (see page 19).	
No. of inspections of hawkers' carts	39
No. of inspections of food factories	137

SUMMARY OF LEGAL PROCEEDINGS—

Defective drains, etc.	2
Infringements of Sale of Food and Drugs Acts	4
Smoke nuisances	—
Common lodging houses	—
Sub-let houses	—
Unsound food	1
Magistrates' Orders for destruction of unsound food	2

INSPECTIONS OF HOUSES MADE UNDER INCREASE OF RENT AND MORTGAGE INTEREST (RESTRICTIONS) ACT ... ... Nil.

No. of Certificates issued by Local Authority	Nil.
Work completed before Certificate was issued	Nil.

DISINFECTION : INFECTIOUS DISEASES—

No. of houses disinfected after notifiable infectious diseases	224
,, houses disinfected after phthisis	179
,, premises disinfected after measles	2
,, visits made to infected houses	251
,, re-visits made to infected houses	180
,, houses cleaned in default of or at request of owners	20
,, houses disinfected for causes other than fevers	10

All houses assessed at £15 per annum or less are cleaned after infectious disease (i.e., the walls stripped and the ceilings whitened), by the Corporation at their own cost; in case of phthisis the Corporation strip, when necessary, whatever the rent.

Filthy Houses—

No. of houses reported	11
,, intimations sent	11
,, houses cleansed	11

List of Articles Disinfected—

	Bootle.	Formby.	Totals.
Paillasses	310	17	327
Mattresses	278	—	278
Beds	397	6	403
Bolsters and Pillows	1399	30	1429
Blankets	1023	46	1069
Quilts	559	18	577
Sheets	648	22	670
Carpets	118	7	125
Hearthrugs	147	4	151
Wearing Apparel	2745	72	2817
Miscellaneous Articles	1022	47	1069
	8646	269	8915

NOTE.—These figures do not include the ambulance bedding (one bed, one pillow, and three blankets), which is disinfected after the removal of each case.

One hundred and twenty-two library books and eighteen books from Formby were disinfected.

The following articles were destroyed at the request of the owners :—Mattresses, 4; Pillows and Bolsters, 23; Beds, 15; Blankets, 3; Quilts, 4; Sheets, 3; and Miscellaneous, 46.

Flushing.

The flushing gang consists of two Corporation workmen and a Liverpool watermau.

No. of private houses at which drains were flushed	9371
No. of passage sewers flushed	504

Drains were flushed at public buildings 36 times.

The drains at the Bootle Borough Hospital, the Bootle Hospital Nurses' Home, the Bootle Maternity Home (51, Balliol Road), and the Liverpool Maternity Home in Hawthorne Road, were each flushed 12 times during the year.

The amount of fresh water used during the year was 2,317,070 gallons. The amount of salt water was 17,340 gallons.

For ten weeks during the summer months the gang was employed flushing back passages and flooded cellars in Mersey, Knowsley, and Linacre Wards.

FACTORY AND WORKSHOP ACT.

Workshops and Workplaces (excluding Bakehouses)—	
No. on register	107
No. of visits and re-visits	735
,, workrooms with dirty walls	1
,, ,, ,, ceilings	—
,, ,, ,, floors	—
,, ,, ,, lavatories	4
,, ,, not properly ventilated	—
,, ,, found overcrowded	—
,, defective drain and water closet	1
,, miscellaneous defects found	2
,, notices issued to occupiers	7
,, notices issued to owners	1
,, notices complied with	8
,, references to the Factory Inspector	—
Factories—	
No. of visits and re-visits	156
No. with insufficient or unsuitable sanitary accommodation	—
No. referred to Borough Engineer	—
No. referred to Factory Inspector	—
No. of defective drains and water closets	1
,, miscellaneous defects found	1
,, defects remedied	2
Bakehouses—	
No. on register	21
No. of visits and re-visits	192
,, bakehouses found dirty (walls and ceilings and floors)	1
,, notices issued for limewashing	1
,, notices issued for dirty yard surface	—
,, bakehouses taken off the register during the year	2
Confectionery Bakehouses—	
No. on register	24
No. of visits and re-visits	201
No. found dirty (walls and ceilings)	—
No. of notices issued for limewashing	—
Outworkers—	
No. of outworkers on register at end of year	1
,, visits and re-visits made to houses of outworkers	6
,, notices served for sanitary defects at houses of outworkers	—
Outworker employed in Bootle for Liverpool firm engaged in :— Underclothing	1
Outworkers employed in Litherland for Bootle firm :— Hosiery	1

Appendix 6.

SALE OF FOOD AND DRUGS ACTS.

SAMPLES TAKEN, 1926.

	Total Number of Samples Analysed	Number reported to be adulterated or not up to standard	Number of Prosecutions	Number of Convictions	Remarks
Milk	100	10	4	4	In 3 instances the samples were informal and convictions were recorded subsequently for formal samples against the vendors. In the 3 cases not proceeded with, the adulteration was so trivial as not to warrant prosecution; in one of these cases the vendor paid Analyst's fee of two guineas.
Condensed Milk ...	11	.	...	...	
Butter	48	...	...	...	
Baking Powder ...	1	...	...	...	
Lemon Cheese ...	1	...		...	
Self-raising Flour	4	...	...	...	
Glycerine	1	...	...	...	
Pepper . . .	1	..	...	...	
Lard...	3	...	...	...	
Rice . ..	2	...	...	...	
Cocoa	1	...	.	...	
Castor Oil	1	.	.	...	
Cheese ...	3	...	...	...	
Mineral Waters ...	3	...	.	...	
Treacle	2	...	...	...	
Custard Powder ...	4	...	...	...	
Preserved Cream ...	3	...	...	...	
Calves Feet Jelly ..	1	...	. .	...	
Camphorated Oil ...	1	.	...	...	
Sarsaparilla ...	1	...	...	..	
Jam	3	...	...	...	
Apples	2	...	...	...	
Syrup	1	...	...	...	
Tea	1	...	...	...	
Gravy Salt	1	...	...	...	
Totals ...	200	10	4	4	

APPENDIX 7.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications received during the period from 3rd January, 1926, to 1st January, 1927.

Notifications on Form A.

Age-periods	Number of Primary Notifications											Total Primary Notifications	Total Notifications on Form **A.**
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards		
Pulmonary, Males ...	...	1	6	6	11	9	25	22	15	11	5	111	155
,, Females ...	1	...	6	3	11	15	24	16	8	4	...	88	101
Non-pulmonary, Males ...	...	11	9	12	2	1	3	1	...	...	1	40	50
,, ,, Females ...	...	4	16	7	4	1	3	4	1	1	...	41	55

Notifications on Form B.

Age-periods	Number of Primary Notifications				Total Notifications on Form **B.**
	Under 5	5 to 10	10 to 15	Total Primary Notifications	
Pulmonary, Males	...	1	...	1	1
,, Females ...	...	...	...	...	...
Non-pulmonary, Males ...	..	3	1	4	4
,, ,, Females ...	...	2	...	2	2

Number of Notifications on Form C.

Poor Law Institutions	Sanatoria
...	59
...	41
...	2
...	8

APPENDIX 7 (*continued*).

SUPPLEMENTAL RETURN.

NEW cases of Tuberculosis coming to the knowledge of the Medical Officer of Health or Chief (Administrative) Tuberculosis Officer during the period from the 3rd January, 1926, to the 1st January, 1927, OTHERWISE than by notification on Form A or Form B under the Public Health (Tuberculosis) Regulations, 1912.

AGE PERIODS	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Cases
Pulmonary Males ...	1	...	...	...	...	...	1	...	1	...	...	3
,, Females ..	...	..	1	1	...	...	...	...	1	1	1	5
Non-pulmonary Males ...	1	3	1	1	...	...	1	...	...	...	1	8
,, Females ...	...	2	3	...	1	...	...	...	...	...	...	6

APPENDIX 8.

VENEREAL DISEASES TREATMENT CENTRE. COPY OF REPORT BY DR. CLEMMEY.

	Syphilis.		Soft Chancre.		Gonorrhœa.		Conditions other than Venereal.		Total.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of cases which—										
(*a*) at the beginning of the year under report were under treatment or observation for:	64	21	2	—	94	4	88	2	248	27
(*b*) had been marked off *in a previous year* as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report *suffering from the same infection*	—	1	—	—	—	—	—	—	—	1
Total—Items 1 (*a*) & (*b*) ...	64	22	2	—	94	4	88	2	248	28
2. (*a*) Number of cases dealt with at the Treatment Centre during the year *for the first time*	81	21	4	1	137	4	85	7	307	33
*Total—Items 1 (*a*), 1 (*b*) & 2 (*a*)	145	43	6	1	231	8	173	9	555	61
2. (*b*) Number of cases *included* in Item 2 (*a*) known to have received *previous treatment at other Centres* for the same infection	22	—	—	--	12	—	1	—	35	—
3. Number of cases which ceased to attend—										
(*a*)—before completing the first course of treatment for :—	16	6	1	—	40	2	—	—	57	8
(*b*)—after one or more courses but before completion of treatment for:—	1	3	—	—	—	—	—	—	1	3
(*c*)—after completion of treatment, but before final tests as to cure of:—	5	5	—	—	37	2	—	—	42	7
4. Number of cases transferred to other Treatment Centres after treatment for :—	15	—	—	—	33	—	—	—	48	—
5. Number of cases discharged after completion of treatment and observation for :—	16	—	1	—	6	—	—	—	23	—
6. Number of cases which, at the end of the year under report, were under treatment or observation for :—	92	29	4	1	115	4	53	6	264	40
*Total—Items 3, 4, 5 and 6 ...	145	43	6	1	231	8	53	6	435	58
7. Out-patient attendances—										
(*a*)—For individual attention by the Medical Officer	1689	620	30	12	2250	68	626	36	4595	736
(*b*)—For intermediate treatment, *e.g.*, irrigation, dressings, etc.	46	—	20	—	1579	—	28	—	1673	—
Total Attendances	1735	620	50	12	3829	68	654	36	6268	736
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from :—	—	—	—	—	211	139	—	—	211	139

* The total of Items 1 (a), 1 (b) and 2 (a) in the vertical columns headed Syphilis, Soft Chancre, and Gonorrhoea should agree with the corresponding total of Items 3, 4, 5, and 6.

APPENDIX 8 (*continued*).

	For detection of			For
	Spirochætes.	Gonococci.	Other Organisms.	Wassermann Reaction.
9. Examinations of Pathological material :—				
(*a*) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre	Nil	81	Nil	Nil
(*b*) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory	Nil	Nil	Nil	215

Statement showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients resided.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales).	Bootle.	Liverpool.	Lancs.	Other areas.	Total.
A. †Number of cases from each area dealt with during the year *for the first time* and found to be suffering from :—					
Syphilis	53	11	18	20	102
Soft chancre	3	1	1	—	5
Gonorrhœa	59	19	31	32	141
Conditions other than venereal	46	15	20	11	92
TOTAL ...	161	46	70	63	340
B. †Total number of attendances at the out-patient Clinic of all patients residing in each area ..	3727	996	1688	593	7004
C. †Aggregate number of "In-patient days" of all patients residing in each area	279	—	19	52	350
D. Number of doses of arsenobenzol compounds given in the :—					
1. Out-patient Clinic	274	74	91	33	472
2. In-patient Dept.	—	—	—	—	—
to patients residing in each area					

E. Give the names of arsenobenzol compounds used in the treatment of syphilis and the usual initial and final doses.

Neokharsivan } From 0·45 grms
Novarsenobillon } to 0·9 ,,

F. State the amount and kind of treatment usually administered to a case of Syphilis of each of the types usually dealt with at the Treatment Centre.

Intramuscular injections of Iodo-Bismuthate of Quinine are also used. Six at least to commence, often up to twelve and repeated after blood test whether positive or negative until case shews repeated negatives.

G. State the nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page.

Syphilis—Repeated negative Wassermann tests.
Gonorrhœa—After satisfactory evidence that there is no gonorrhœal and urethral discharge and no gonococci.

† The totals in Item A should agree with the corresponding totals in Item 2 (a) on the previous page, and the totals in Items B and C should agree with the respective totals in Items 7 and 8 on the previous page.

W. N. CLEMMEY,
Medical Officer of the Treatment Centre.

1st March, 1927.

APPENDIX 9.

VENEREAL DISEASES.

Annual Return of Pathological Examinations made during the year ended on the 31st December, 1926.

At the University of Liverpool—

For detection of spirochaetes—For Treatment Centre		—
For Practitioners		—
For detection of gonococci—For Treatment Centre		—
For Practitioners		1
For Wassermann reaction—For Treatment Centre		234
For Practitioners		38
		273

APPENDIX 10.

WORK DONE BY THE WELFARE VISITORS.

Total visits paid	15960
First visits to infants	1709
Routine visits to infants	4652
Visits to children, aged 1 to 2 years	2965
Visits to children, aged 2 to 5 years	4171
First visits to expectant mothers	397
Routine visits to expectant mothers	512
Ophthalmia Neonatorium—First visits	39
,, ,, Routine visits	84
Special visits to cases of Diarrhoea	139
,, ,, Measles	356
Visits *re* still-births	56

APPENDIX 11.

ANTE-NATAL CLINICS.

JANUARY 1ST, 1926, TO DECEMBER 31ST, 1926.

	Balliol Road Clinic.	Marsh Lane Clinic.	Totals.
Number of times Clinics opened	48	50	98
Number of attendances made	1286	1389	2675
Number of new cases	217	245	462
Number of patients under treatment at end of 1925	50	47	97
Normal labour	89	152	241
Abortion	2	6	8
Stillbirth	3	7	10
Lived few hours	2	—	2
Difficult labour	1	14	15
Not pregnant	7	11	18
Transferred	2	—	2
Ceased attending	29	24	53
Referred to Hospital or Maternity Home	85	41	126
Caesarian section	—	—	—
Number under treatment at end of 1926	47	36	83
Wassermann—			
Positive	—	—	—
Slightly positive	—	—	—
Negative	—	1	—
Smears taken for Gonococci—			
Positive	—	—	—
Negative	—	—	—

APPENDIX 12.

LINACRE HOSPITAL.—Revised Diagnoses and Complications.

SCARLET FEVER ADMISSIONS.	Bootle	Litherland
Re-diagnosed as :—		
Scarlet Fever and Burns	2	—
Scarlet Fever and Erysipelas	1	—
Scarlet Fever and Keratitis	1	—
Scarlet Fever and Whooping Cough ...	3	—
Scarlet Fever and Rheumatism ...	1	—
Chickenpox	1	—
Erythema	3	1
Measles	1	—
Tonsillitis	7	—
Totals	20	1

DIPHTHERIA ADMISSIONS.	Bootle	Litherland
Re-diagnosed as :—		
Diphtheria and Chickenpox	—	1
Diphtheria and Erythema nodosum ...	1	—
Tonsillitis	8	7
Tonsillitis and Rickets	1	—
Catarrhal Laryngitis	2	—
Measles	3	—
Scarlet Fever	1	1
Lobar Pneumonia	1	—
Lobar Pneumonia and Peritonitis ...	1	—
Vincent's Angina	1	—
Quinsy	1	—
Mumps and Whooping Cough ...	1	—
Otitis Media	—	1
Abscess of jaw	1	—
Totals	22	10

APPENDIX 13.

LOCAL POWERS RELATING TO PUBLIC HEALTH.

(1) Acts of Parliament adopted by the Council.

Infectious Disease (Notification) Act, 1889.
Infectious Disease (Prevention) Act, 1890, sections 5, 6, 14, 15, 16, 17, 18, 20, and 21.
Public Health Acts Amendment Act 1890, Part III.
Housing of the Working Classes Act, 1890, Part III.
Notification of Births Act, 1907.
Sections 22, 23, 24, 33, 35, 44, 50, 51, 52, 53, 54, 57, 61, 62, 63, 64, 65, 69, 70, 71, 72, 73, 74, 75, and 95, Public Health Acts Amendment Act, 1907.

(2) Bootle Corporation Acts and Orders.

Bootle Corporation Act, 1890.
Bootle Order, 1897; confirmed by the Local Government Board's Provisional Orders Confirmation (No. 16) Act, 1897, relative to Sanitary Improvements.
Bootle Corporation Act, 1899.
Bootle Order, 1914; confirmed by the Local Government Board's Provisional Orders Confirmation (No. 6) Act, 1914, relating to the substitution of moveable ashpits for fixed ashpits.
Bootle Corporation Act, 1920.

(3) Bye-Laws and Regulations in force in the Borough.

New Streets and Buildings, 1869.
Nuisances, 1887.
Slaughter Houses, 1887.
New Streets and Buildings, 1890.
Common Lodging Houses, 1894.
Carriage of Offensive Matter through Streets, 1898.
New Streets and Buildings and Alteration of Buildings, 1899.
Structure of Walls of New Buildings, 1900.
Structure of Foundations of New Buildings and Construction of New Streets, 1904
Hospitals provided by the Corporation, 1904.
Houses let in Lodgings, or occupied by members of more than one family, 1904.
New Buildings. Ashpits in connection with Buildings Removals of House Refuse and Nuisances, 1907.
New Streets (width), 1908.
Construction of Walls of New Public Buildings and New Warehouse Buildings, 1910.
Parasitic Mange—Regulations as to cleansing and disinfection, 1910.
Houses let in lodgings, 1912.
Ashpits in connection with buildings and the removal of house refuse, 1925.